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Abstracts of the 2021 Annual meeting of the ALEH (Asociación Latinoamericana para el Estudio del Hígado)

P-1 PREVALENCE AND EPIDEMOLOGY OF BACTERIAL INFECTIONS IN PATIENTS WITH ALCOHOLIC HEPATITIS: A RETROSPECTIVE STUDY OF PATIENTS ADMITTED AT THE SAN RAFAEL DE ALAHUELA HOSPITAL, COSTA RICA

Alejandra Ochoa[1], Pablo Coste[1], José Moreno[2]

[1] *Gastroenterology Department, Hospital Dr. Rafael Ángel Calderón Guardia, San José, Costa Rica*
[2] *Gastroenterology Department, Hospital San Rafael de Alajuela, Alajuela, Costa Rica*

Introduction: Bacterial infections in patients with alcoholic hepatitis have a high incidence and can contribute to the developments of organ failure and death.

Aims: To determinate the prevalence and epidemiology of bacterial infections in patients with alcoholic hepatitis; to evaluate the epidemiological and clinical characteristics in patients with alcoholic hepatitis; to identify predictive factors associated with infections in patients with alcoholic hepatitis; to determinate the proportions of patients with positive microbiological cultures; and to investigate the mortality in patients with alcoholic hepatitis with and without infection.

Methodology: This is a retrospective and observational study that included patients admitted to the San Rafael de Alajuela Hospital-Costa Rica; between November 2019 and February 2020. The medical records of all the patients who met the selection criteria were reviewed.

Results: 41 patients (80% male, mean age: 50 years ± 10) were analyzed. A high prevalence of concurrent sepsis was observed (73%, 36% nosocomial), with a proportion of culture positivity of 45%. Only the presence of leukocytosis and neutrophilia was associated with an increased risk of infection. The AUROC of the presence of leucocytosis was 0.86 (95% CI: 0.73-0.98) and the cut-off was 9520/mm^3 presented the best diagnostic accuracy (S: 90%, E: 72.7%). Acute on chronic liver failure and severe alcoholic hepatitis was associated with high mortality.

Conclusion: The results confirm the high prevalence of bacterial infections in patients with alcoholic hepatitis. Leucocytes value was a risk factor for the development of infection and acute on chronic liver failure was associated with higher mortality.

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P-2 HEPATIC STEATOSIS AMONG PEOPLE LIVING WITH HIV IN SOUTHERN BRAZIL: PREVALENCE AND RISK FACTORS

Marina Ferri-Pezzini[1,2], Hugo Cheinquer[1,3], Alexandre de Araujo[1,3], Carlos T. Schmidt-Cerski[1,4], Eduardo Sprinz[1,5], Fernando Herz-Wolff[1,6], Julia Poeta[1,7]

[1] *Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, Brazil*
[2] *Post Graduate Program – Science in Gastroenterology and Hepatology, School of Medicine, Porto Alegre, RS, Brazil*
[3] *Gastroenterology and Hepatology Division, Hospital de Clínicas de Porto Alegre, Porto Alegre, RS, Brazil*
[4] *Pathology Division, Hospital de Clínicas de Porto Alegre, Porto Alegre, RS, Brazil*
[5] *Infectious Disease Service, Hospital de Clínicas de Porto Alegre, Porto Alegre, RS, Brazil*
[6] *Liver Disease Center, Hospital Moinhos de Vento, Porto Alegre, RS, Brazil*
[7] *Science Health Institute, Centro Universitário Ritter dos Reis, Porto Alegre, RS, Brazil*

Introduction: Chronic liver disease is an important cause of morbidity and mortality among people living with human immunodeficiency virus (HIV) and is frequently related to non-alcoholic fatty liver disease (NAFLD).

Objective: The objective is to estimate the prevalence and risk factors of hepatic steatosis among consecutive patients with stable HIV infection on antiretroviral therapy (ART). Also, the use of transient elastography (TE) as a mean to identify a subgroup at risk for non-alcoholic steatohepatitis (NASH) and/or liver fibrosis.

Methods: HIV infected patients were enrolled between August2016 and February2017. Inclusion criteria: ≥18 years with undetectable HIV viral load. Exclusion criteria: pregnancy; alcohol intake ≥20 g/day and co-infection B or C viruses. Patients underwent ultrasound (US) to diagnose liver steatosis. Significant fibrosis (≥F2) was estimated if at least one of the following were present: APRI > 1.0, FIB4 > 3 and/or liver stiffness ≥7.1kPa. Subjects with TE ≥ 7.1kPa were proposed a liver biopsy and NAFLD Scoring System (NAS) ≥ 3 was considered as diagnosis of NASH.

Results: A total of 98 patients were included. Liver steatosis was diagnosed in 31 patients (31.6%) and was independently associated with male gender, BMI, ALT and total bilirubin levels. The prevalence of significant fibrosis assessed by TE, APRI and FIB4 was 26.9%, 6.4% and 3.2%, respectively. Seven patients had a TE result ≥7.1kPa. NASH was found in 5 (83.3%).

Conclusion: Among HIV infected patients undergoing ART, almost one third have NAFLD. Neither TE, APRI or FIB4 were able to act as surrogates for significant liver fibrosis. Nevertheless, TE ≥ 7.1kPa was able to accurately select a subgroup of patients at risk for NASH.

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P-3 IMPACT OF THE SUSTAINED VIROLOGICAL RESPONSE ON THE GLUCOSE METABOLISM IN PATIENTS WITH HEPATITIS C

Fabia Benetti[1], Ítalo de Maman Júnior[1], Cristina Coelho Borges Cheinquer[2], Fernando Wolff[1], Alexandre de Araújo[3], Hugo Cheinquer[1]

[1] *Pós-Graduação em Gastroenterologia e Hepatologia da Universidade Federal do Rio Grande Do Sul, Porto Alegre, Brasil*
[2] *Curso de medicina Universidade do Vale do Rio do Sinos-Unisinos, Porto Alegre, Brasil*
[3] *Departamento de Gastroenterologia do Hospital de Clínicas de Porto Alegre, Brasil*

Introduction: Hepatitis C (HCV) is a systemic disease with hepatic and extrahepatic repercussions, its association with some diseases, such as hepatocellular carcinoma is well documented, however its relationship with glucose metabolism is still unclear. Objective: to analyze the impact of the sustained viral response (SVR) on the glucose metabolism in patients with HCV, before and after 12 weeks of treatment with direct acting antivirals (DAA).

Methods: 207 HCV patients attended at the Outpatient Clinic for Viral Hepatitis of the Hospital de Clínicas de Porto Alegre, from October 2015 to December 2018, participated in the study. Participants who obtained SVR and had data on glucose metabolism (fasting glucose and/or HbA1c) were included before and after the treatment.

Results: Of the 207 participants, 52% (107) were women. Type 2 diabetics (DMT2) and pre-diabetics had a higher frequency of comorbidities and polypharmacy, compared to the normoglycemic ones. Regarding blood glucose classification, 98 (47%) were normoglycemic, 58 (28%) pre-diabetic and 51 (25%) diabetics at the beginning of treatment. After the treatment, 17/98 (17.3%) normoglycemic patients came to be pre-diabetic and none were diagnosed with T2DM. Among the pre-diabetics, 11/58 (18.9%) went to DMT2 and 29/58 (50%) returned to being normoglycemic. As for pre-treatment DMT2 patients, 12/51 (23.5%) returned to pre-diabetes, while 3/51 (5.9%) became normoglycemic.

Conclusion: Most patients who achieve SVR after treatment with DAA show improvement or stability of the glycemic parameters, including among those already diagnosed with DMT2. However, a subgroup shows worsening of glucose metabolism, including progression to diabetes.

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P-4 ALBUMIN LEVELS HAVE STRONGASSOCIATION WITH MORTALITY IN COVID-19 INFECTED PATIENS

Martín Uriel Vázquez-Medina[1], Cesar Montejo-Velázquez[2], Cruz Vargas-De-León[3], Arcelia Carolina Barrón-Campos[1], José Antonio Almeyda-Farfán[1], Julián Gonzalo Gándara-Calderón[2], Claudia Pantaleón-Martínez[2], Nerina del Carmen Fernández-Martínez[2], Herrera-Maceda María del Rosario[2], Eira Cerda-Reyes[2]

[1] *Departamento de Investigación, Hospital Central Militar, CDMX, México*
[2] *Servicio de Gastroenterología, Hospital Central Militar, CDMX, México*
[3] *Departamento de Posgrado, Escuela Superior de Medicina, CDMX, México*

Introduction: To optimize hospital management of COVID-19 patients it is important to have parameters that allow us to identify patient with an increased risk of death. Although hypoalbuminemia has been related with severity in COVID-19, there is no agreement of the albumin cutoff points with a potential clinical use. Additionally, a measure of strength of the association between albumin levels and mortality has not been reported.

Therefore, the aim of this study is to evaluate if Child Pug albumin categories are associated with mortality and obtain the strength of the association.

Methods: Patients admitted to hospitalization with a positive SARS CoV 2 PCR from 4 April to 24 June 2020 were analyzed. Three groups were formed based on Child-Pugh albumin categories. Death frequency were compared between groups and statistical significance of the difference were assessed using a Xi^2 test, strength of association between albumin levels and death was evaluated with a Kendall's Tau B test.

Results: A total of 348 patients were studied, age was 54.4 ± 14.7 years, 250 (71.8%) were male and 182 patients died (52%). Association of Albumin level and Death is presented **Table 1,** Kendall Tau B shows that knowing albumin level improves in 32% the prediction of death and since it has a negative coefficient at a lower level of albumin, risk of death increase.

Table 1
Association of albumin levels with death

N = 348	Total n	Alive (n=166) n (%)	Death (n=182) n (%)	*P-value*
Albumina				
Normal >3.5 g/dL	106	77 (72)	29 (27)	<0.001*
MH 3.5-2.8 g/dL	157	66 (42)	91 (57)	
SH <2.8 g/dL	85	23 (27)	62 (72)	

MH: Mild hypoalbuminemia; SH: Severe hypoalbuminemia
*Obtained with Xi^2 test, Kendall's Tau-B = - 0.32 ASE = 0.046.

Conclusions: Kendall's Tau-B shows a strong association between Child-Pug albumin categories and death, so is possible it's use in clinical decisions as a marker of severity.

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P-5 HEPATITIS E VIRUS INFECTION INCREASES THE RISK OF DIABETES AND MORTALITY IN HCV infected patients

Patricia Momoyo Yoshimura Zitelli[1], Michele Gomes-Gouvêa[1], Daniel F. Mazo[1,4], Julio da Motta Singer[3], Claudia PMS Oliveira[1], Alberto Queiroz Farias[1], João Renato Pinho[1], Ryan YukimatsuTanigawa[2], Venancio Avancini Ferreira Alves[2], Flair José Carrilho[1], Mário Guimarães Pessoa[1]

[1] *Division of Clinical Gastroenterology and Hepatology, Department of Gastroenterology, University of São Paulo School of Medicine, Sao Paulo, Brazil*
[2] *Department of Pathology, University of Sao Paulo School of Medicine, Sao Paulo, Brazil*
[3] *Institute of Mathematics and Statistic, University of Sao Paulo, Sao Paulo, Brazil*
[4] *Division of Gastroenterology (Gastrocentro), School of Medical Sciences, University of Campinas (UNICAMP), Campinas, Brazil*

Background: Co-infection with hepatitis A or B viruses may aggravate liver injury in hepatitis C virus (HCV) infected patients. However, few studies have assessed hepatitis E virus (HEV) and HCV coinfection.

Aim: Our goal was to assess the prevalence and impact of HEV infection among Brazilian patients with chronic hepatitis C virus.

Methods: This cross-sectional study included adult patients with chronic HCV infection, naïve to antiviral therapy. Prospectively and consecutively recruited from January 2013 to March 2016. 181 patients were enrolled and HEV serology and PCR were performed for all patients.

Results: Seropositivity for anti-HEV IgG was detected in 22 (12.0%) and for anti-HEV IgM in 3 (1.6%) patients. HEV RNA was inconclusive in 9 (4.9%) and undetectable in the remaining cases. HEV serology positive cases had more severe liver disease, characterized by liver fibrosis ≥3 vs ≤2 (p<0.001), APRI (≥1.45) (p=0.003) and FIB-4 (≥3.25) (p=0.001), respectively. Additionally, the odds of diabetes mellitus for HEV positive patients was 3.11 (95%CI 0.99-9.97) times the corresponding odds for HEV negative patients. Furthermore, HEV positive patients had significantly lower survival when compared to their HEV-negative counterparts (p=0.0016 for death and p=0.0067 for death or transplantation endpoint).

Conclusions: Although seroprevalence of HEV was low, this infection may influence the severity of liver disease and may represent an additional risk for developing diabetes mellitus in HCV patients.

Key-words: Hepatitis E, Chronic hepatitis C, Diabetes mellitus, Liver fibrosis, Cirrhosis, Seroprevalence

Table 1
Demographic, clinical, and laboratorial exams characteristics of subjects with anti-HEV positive and negative antibodies.

	HCV group		HEV-HCV group		
Variable	n/total	mean±SD‡ or %	n/total	mean±SD‡ or %	*P* value
Age (years)	157	52.5±12.9	24	57.0±10.4	0.070
Male	73/157	47%	9/24	38%	0.546
Weight (kg)	150	71.8±15.3	23	73.4±23.3	0.757
Height (cm)	148	164.5±9.9	23	161.2±12.7	0.243
BMI[a] (kg/m^2)	148	28.5±5.1	23	27.9±6.8	0.343
Arterial hypertension	68/151	45%	13/23	57%	0.421
Diabetes mellitus	32/151	21%	12/23	52%	0.003*

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P-6 SOFOSBUVIR CONTAINING REGIMENS ARE SAFE AND EFFECTIVE IN ADOLESCENTS WITH CHRONIC HEPATITIS C INFECTION

Stefan Wirth[1], Regino Gonzalez-Peralta[2], Philip Rosenthal[3], Winita Hardikar[4], Jessica Wen[5], Maureen M. Jonas[6], Naveen Mittal[7], Mary Whitworth[8], Ronen Arnon[9], Chuan-Hao Lin[10], Yury Lobzin[11], Rene Romero[12], Vladimir Chulanov[13], Girish Subbarao[14], Jeffrey Teckman[15], Vyacheslav Morozov[16], Eric Bassetti[17,*], Kathryn Kersey[17], Benedetta Massetto[17], Yanni Zhu[17], Polina German[17], Diana M. Brainard[17], Sanjay Bansal[18], Karen F. Murray[19], Kathleen Schwarz[20], William Balistreri[21]

[1] *Helios Medical Center, Witten/Herdecke University, Wuppertal, Germany*
[2] *Gonzalez Peralta Regino, University of Florida, Gainesville, FL, USA*
[3] *Rosenthal Philip, University of California San Francisco, San Francisco, CA, USA*
[4] *The Royal Children's Hospital Melbourne, VIC, Australia*
[5] *The Children's Hospital of Philadelphia, Philadelphia, PA, USA*
[6] *Boston Children's Hospital, Boston, MA, USA*
[7] *UTHSCSA, SA, Texas, USA*
[8] *Cook Children's Health Care System, Fort Worth, TX, USA*
[9] *Mount Sinai Medical Center, New York, USA*
[10] *Children's Hospital Los Angeles, Los Angeles, CA, USA*
[11] *Research Institute of Children's Infections, Federal Biomedical Agency of Russia, Saint Petersburg, Russia*
[12] *Children's Healthcare of Atlanta and Emory University, Atlanta, USA*
[13] *Central Scientific-Research Institute of Epidemiology, Moscow, Russia*
[14] *Riley Hospital for Children at IU Health, Indianapolis, USA*
[15] *Saint Louis University, Cardinal Glennon Children's Medical Center, St Louis, MO, USA*
[16] *Medical State University, Samara, Russia*
[17] *Gilead Sciences, Foster City, CA, USA*
[18] *Kings College Hospital, London, UK*
[19] *Seattle Children's Hospital, Seattle, WA, USA*
[20] *Johns Hopkins University School of Medicine, Baltimore, MD, US*
[21] *Cincinnati Children's Hospital Medical Center, Cincinnati, OH, USA*

Background: HCV-specific DAAs have transformed treatment of chronic HCV, but few studies have evaluated these therapies in children.

Methods: Patients aged 12–17 years old with chronic GT1 HCV were enrolled into an open-label study to receive 12 weeks of LDV/SOF 90 mg/400 mg once daily, and those with HCV GT2 or GT3 to receive SOF (400 mg once daily) + RBV (15 mg/kg/day) for 12 (GT2) or 24 weeks (GT3), respectively. Primary efficacy endpoint was SVR12. Safety was assessed by adverse events and clinical/laboratory data. Pharmacokinetic (PK) sampling was conducted to confirm the appropriateness of the doses.

Results: 150 adolescents (100 GT1, 13 GT2 and 37 GT3) were enrolled and treated. The majority were female (56%), white (90%), treatment naive (81%), and vertically infected (80%). The mean age was 15 years (range 12–17). LDV, SOF and GS-331007 (primary metabolite) exposures were within the range of adult exposures observed in the SOF and LDV/SOF phase 2/3 studies. The SVR12 rate was 98% in GT1, 100% in GT2 and 97% in GT3; all 3 patients who were considered not to have achieved SVR12 were lost to follow-up. No adverse event (AE) leading to study drug discontinuation or serious AEs have been reported.

Conclusion: In adolescents, LDV/SOF for 12 weeks and SOF + RBV for 12 or 24 weeks, resulted in a SVR12 rate of 97–100% with no virologic failures. These regimens were well tolerated, demonstrating their potential as an important treatment option for children with HCV infection.

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P-7 CLINICAL AND HISTOPATHOLOGICAL FEATURES OF THIRTY-FIVE OBLITERATIVE PORTAL VENOPATHY PATIENTS AND POTENTIAL ROLE OF XENOBIOTICS

Vinicius Santos Nunes[1], Gildasio Junior[2], Maria Isabel Schinoil[1], Luis Freiras[3], Raymundo Prana[1]

[1] *Servicio de Gastroenterologia e Hepatologia do Hospital Universitário Professor Edgar Santos, universidade Federal da Bahia, Brasil*
[2] *Facultad de Medicinada Universidade Federal da Bahia, Brasil*
[3] *Servicio de Anatomia Patológica, Universidade Federal da Bahia, Brasil*

Introduction: Classically described in the group of non-cirrhotic portal hypertension, Obliterative Portal Venopathy (OPV) is a spectral disease, which can be diagnosed before the manifestations of portal hypertension. Its causes are still unknowing and the identification of possible risk factors are important to further etiological investigation.

Aims: To describe the characteristics of OPV patients and potential risk factors.

Methods: Thirty five consecutive adults patients with OPV were retrospectively selected on histological criteria, defined by phlebosclerosis, disappearance and reduction of the diameter of portal vein branch and exclusion of cirrhosis. Clinical and laboratory data were analyzed. Clinically significant portal hypertension was considerated in presence of esophageal varices or ascites. No explanted liver was considered.

Results: Mean age at diagnosis was 46 ± 11 years old predominantly female (83%). Clinically significant portal hypertension was found in 26% of cases. The most frequent indication for liver biopsy was liver enzymes elevation, mostly GGT increase in 76% of patients, average 234 IU/L (upper limit of normality up to 40 IU/L) and ALT in 60%, mean 72 IU/L (38 IU/L). Possible risk factors were described in Table 1. Compatible chronology between start medication and biochemical change was considered to attribute suspicion to the xenobiotic.

Conclusion: Most OPV patients could be diagnosed before manifestation of clinical portal hypertension, additionally, GGT and ALT elevation are frequent findings and more than half os the patients were exposed to xenobiotics before the enzymes changes. Finally xenobiotics, autoimmunity and thrombophilia are possible risk factors and should be investigated.

Table 1. Possible Association	n (%)	Variable: n
Drugs and Herbs	19 (54)	Herbalife: 5 / Herb: 5 Hormones (includind oral contraceptives): 5 Chemotherapy: 2 Methrotexate, benzene exposion: 1 each
Autoimunity	9 (26)	ANA ≥ 160: 6 / ASMA ≥ 80: 1 Thireoiditis: 3 Reumatoid arthritis: 1
Thrombophilia	8 (23)	Factor V Leiden mutation: 2 Definciency of anti thrombin:1 Antiphospholipid syndrome: 2 Mthfr mutation:2 Splanchnic thrombosis: 3

ANA: Antinuclear antibody. ASMA: Anti-smooth muscle antibody. MTHFR: Methilenetetrahydropholatase reductase. Some patientes combined more than one condition

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P-8 PRESERVATION OF THROMBIN GENERATION IN CIRRHOSIS DESPITE ABNORMAL RESULTS OF INTERNATIONAL NORMALIZED RATIO: IMPLICATIONS FOR INVASIVE PROCEDURES

Caroline Marcondes Ferreira[1], Tania Rubia Flores da Rocha[2], Evandro Oliveira Souza[1], Flair Jose Carrilho[1], Elbio Antonio D'amico[2], Alberto Queiroz Farias[1]

[1] *Departamente of Gastroenterology, University of Sao Paulo School of Medicine, Sao Paulo, Brazil*
[2] *Hemostasis Laboratory, Department of Internal Medicine, Sao Paulo, Brazil*

Introduction: Thrombin generation (TG) is normal or elevated in patients with cirrhosis when tested in the presence of thrombomodulin (TM), the activator of the main natural anticoagulant protein C. However, the relationship between TG with bleeding has been little explored in literature.

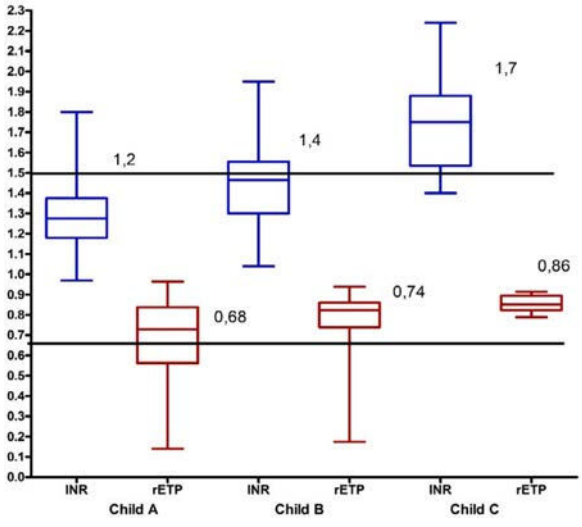
Aims: To assess the relation among TG potential, measured without and in presence of TM, INR and the occurrence of bleeding after endoscopic band ligation of esophageal varices.

Patients and Methods: 97 consecutive patients with cirrhosis were prospectively included (58 men; 54±10 years) and divided into two groups INR< 1.5 (n=72) or INR ≥1.5 (n=25). 46 healthy individuals were tested as controls. Endogenous thrombin potential (ETP) was measured without and with the addition of TM.

Results: ETP measured without TM was reduced in patients with cirrhosis when compared to controls, but no significant difference was found between the INR< 1.5 and INR ≥1.5 groups (1,250±315.7 versus 1,186±238 nmol/L x min; p= 0.3572). After addition of TM, both groups generated thrombin comparable to controls (INR ≥1.5: 965.9±232.3; INR<1.5: 893.0±368.6; controls: 915.0±458 nmol/L x min). 80% of patients had high ETP without/with TM ratio, indicating trend to hypercoagulability, which was more marked in the INR ≥1.5 group (0.81±0.1 versus 0.69±0.2; p=0.0042). Post-EVL bleeding occurred in 5.2% of the patients (INR<1.5, n=3; INR ≥1.5, n=2), all of them with ETP. without/with TM ratio ranging from 0.72 to 0.90 (controls 0.57±0.21).

Conclusions: This study shows that TG in the presence of TM was normal in most patients with cirrhosis, including those with high INR value, but did not correlate with post-EVL bleeding.

INR values and RETP values according to Child-Pugh class.



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P-9 SAFETY AND EFFECTIVENESS OF DIRECT ACTING AGENTS FOR HCV TREATMENT AFTER LIVER TRANSPLANTATION IN RIO DE JANEIRO (BRAZIL)

L.C.M. Pinto[1,2], E. Balbi[2], Halpern[2], L.P. Carius[2], J. Roma[2], L.F.P. Moreira[1], H. Perazzo[1]

[1] *Instituto Nacional de Infectología Evandro Chagas Filho (INI) – Fiocruz, Rio de Janeiro*
[2] *Hospital Quinta Do – Rio de Janeiro*

Introduction: Data concerning HCV treatment using direct acting agents (DAAs) after liver transplantation (LT) remain scarce in Brazil.

Aims: To describe safety and effectiveness of HCV treatment using DAAs in LT recipients in a single center from Rio de Janeiro (Brazil).

Methods: `This retrospective observational study included adults with HCV infection treated by interferon-free regimens after LT. Recurrent infection in the graft was defined by liver biopsy or persistent elevated aminotransferases, in the absence of vascular and biliary tract complications. Presence of cirrhosis was defined by histological analysis of the graft. Patients were treated from August/2015 to December/2019 according to the Brazilian guidelines. Sustained virological response (SRV) was defined by undetectable HCV-RNA 12 weeks after the end-of-treatment and reported as per-protocol.

Results: 116 patients, 63% male, median age 62 (IQR, 57-66) years, 75% genotype 1 and 62% with hepatocellular carcinoma (HCC) previous to LT were included. The overall SVR rate was 96.6% (95%CI, 91.1-98.7). There was no significant difference in SVR rates according to clinical/demographic characteristics, HCV genotype or presence of cirrhosis in the graft. SVR rates were similar in individuals with or without history of HCC before LT [95.8% (95%CI 87.6-98.7) vs 97.7% (95%CI, 85.0-99.7%)], p=0.588. Asthenia was the most frequent adverse event [23.3% (95%CI 16.4-32.0)] and no serious adverse events were observed. The use of ribavirin independently associated with incidence of at least one adverse event [OR=8.71 (95%CI 3.17-23.99)].

Conclusion: HCV treatment with DAAs were safe and highly effective after LT in a real-life cohort in Brazil.

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P-10 LATIN AMERICAN REGISTRY OF CHOLANGIOCARCINOMA: CLINICAL FEATURES, MANAGEMENT AND OUTCOMES

Leonardo G. da Fonseca[1,2], Laura Izquierdo-Sanchez[3], Pedro H. Hashizume[2], Estefanía Liza Beca[4], Yanina Carlino[5], Enrique Carrera[6], Marco Arrese[7], Javier Díaz Ferrer[4,8], Domingo Balderramo[5], Flair J. Carrilho[1,9], Andre Boonstra[10], Jose D. Debes[10,11], Claudia Pinto Marques Souza de Oliveira[12], Jesus M. Banales[3,13,14]

[1] *São Paulo Clínicas Liver Cancer GroupClinical Oncology*
[2] *Instituto do Câncer do Estado de São Paulo, University of Sao Paulo, Brazil*
[3] *Department of Liver and Gastrointestinal Diseases, Biodonostia Health Research Institute, Donostia University Hospital, University of the Basque Country (UPV/EHU), 20014 San Sebastian, Spain*
[4] *Departamento del Aparato Digestivo, Hospital Edgardo Rebagliati-EsSalud*
[5] *Gastroenterology Department, Hospital Privado Universitário de Córdoba, Instituto Universitario de Ciències Biomédicas de Córdoba, Córdoba, Argentina*
[6] *Department of Gastroenterology and Hepatology, Hospital Eugenio Espejo, Quito, Ecuador*
[7] *Departamento de Gastroenterología, Facultad de Medicina, and Centro de Envejecimiento y Regeneracion (CARE), Departamento de Biologia Celular y Molecular, Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile, Santiago, Chile*
[8] *Facultad De Medicina. Universidad Nacional Mayor de San Marcos, Lima -Perú*
[9] *Hospital das Clínicas Complex, Division of Clinical Gastroenterology and Hepatology, Department of Gastroenterology, University of São Paulo School of Medicine, São Paulo, Brazil*
[10] *Department of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, NL*
[11] *Department of Medicine, University of Minnesota, Minneapolis, MN, US*
[12] *Department of Gastroenterology, Clinical Division, Hepatology Branch, University of São Paulo School of Medicine, São Paulo, Brazil*
[13] *National Institute for the Study of Liver and Gastrointestinal Diseases, CIBERehd, Instituto de Salud Carlos III, 28029 Madrid, Spain*
[14] *Ikerbasque, Basque Foundation for Science, 48013 Bilbao, Spain*

Introduction: Cholangiocarcinoma (CCA) includes a heterogeneous group of biliary cancers with dismal prognosis and increasing incidence. Information on epidemiology and risk factors are scarce, particularly in Latin America.

Aim: Describe and analyze a multicentric cohort of CCA patients from Latin America.

Methods: The Ibero-Latin American Research Network on Cholangiocarcinoma (ILARN-CCA) Registry and ESCALON consortium (www.escalon.eu) collected data from patients diagnosed from 2010 and onwards.

Results: 183 patients with histologically/cytologically confirmed CCA were included from 5 tertiary hospitals (Brazil,Argentina,Chile, Ecuador and Peru). Median age at diagnosis was 62 years-old (IQR:25-87) and 55.7% were women. Most frequent risk factors were overweight/obesity (n=68;31.1%), diabetes (n=35;19.1%), NAFLD (n=14;7.7%), viral hepatitis (n=5;2.7%), cirrhosis (n=4;2.2%), gallstones (n=10;5.5%), primary sclerosing cholangitis (n=11;6%) and 21.3%(n=39) had no known-risk factor. Intrahepatic CCA was the predominant type (n=73;39.9%), followed by distal (n=49;26.8%) and perihilar (n=38;20.8%). Regional lymph-node invasion was found in 74 (40.4%) and metastasis in 79 (43.2%) patients. Upon diagnosis, 88 patients (48.1%) required upfront biliary stenting prior to main treatments, consisting in resection (n=39;21.3%) or palliative modalities (n=135;73.8%). Recurrence occurred in 64.1%(n=25), with median time-to-recurrence of 13.5 months (95%CI:6.5-18.8). Chemotherapy was delivered to 120 patients (Gemcitabine+Cisplatin:n=105;87.5%) with a median progression-free survival of 4.2 months (95%CI:3.4-4.9). Median overall survival of the entire cohort was 8.2 months (n=183;95%CI:6.3-10.2), 22.5 (n=39;95%CI:11.6-34.1) under surgery, 10.4 (n=87;95%CI:8.4-13.6) under chemotherapy and 2.5 (n=30;95%CI:1.5-3.9) without active treatments (log-rank p<0.001).

Conclusion: CCA is associated to diverse etiologies in Latin-America, particularly metabolic disorders. Surgical resection shows favorable outcome, highlighting the need of surveillance strategies in individuals at risk.

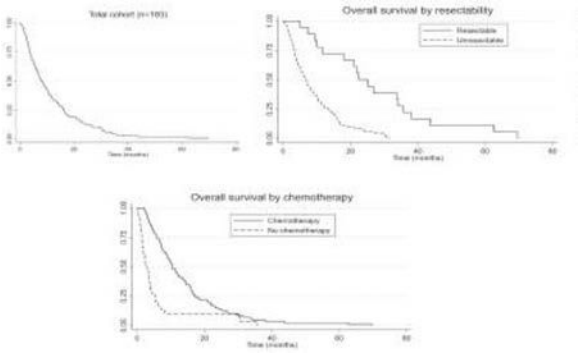

Figure 1: Kaplan Meier curves. Left: total cohort; Middle: resectable CCA versus unresectable; Right: candidates to palliative modalities submitted to chemotherapy versus no-chemotherapy

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P-11 POTENTIALLY HEPATOTOXIC DRUGS ARE STILL BEING PRESCRIBED TO LIVER DISEASE PATIENTS UNDER TERTIARY CARE: IT IS TIME TO SAY ENOUGH

Rodrigo Dorelo[1,5,*], Samantha T.A. Barcelos[2,5], Magela Barros[1,5], Valeria Elustondo[1,5], Ysela Y.P. Pérez[2,5], Martin Oricchio[1,5], Nelson D.S. Uribe[2,5], Nelia Hernandez[1], Dvora Joveleviths[2], Mário R. Álvares-da-Silva[2,3,4,5]

[1] *Department of Gastroenterology, Hospital de Clínicas, Facultad de Medicina, Universidad de la República, Montevideo, Uruguay*
[2] *Graduate Program in Gastroenterology and Hepatology, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil*
[3] *Experimental Laboratory of Hepatology and Gastroenterology, Center for Experimental Research, Hospital de Clínicas de Porto Alegre, Porto Alegre, Brazil*
[4] *Division of Gastroenterology, Hospital de Clínicas de Porto Alegre, Porto Alegre, Brazil*
[5] *World Gastroenterology Organization Porto Alegre Hepatology Training Center, Porto Alegre, RS, Brazil*

Introduction and Aim: Drug-induced liver injury (DILI) manifests as a spectrum of clinical presentations that carries morbidity and mortality. Patients with chronic liver disease (CLD), particularly hospitalized, are at high risk for developing DILI. We aimed to investigate the use of potentially hepatotoxic drugs (PHD) in patients with CLD in a tertiary university hospital.

Materials and Method: Adult (≥ 18 years-old) with CLD admitted to the hospital from January 2016 to December 2018 were evaluated regarding PHD, assessing the risk of DILI and liver enzymes behavior after exposure.

Results: From 931 hospitalized patients with CLD, 291 (31.3%) were exposed to hepatotoxic drugs during their hospitalization. Of those, 244 (83.8%) were cirrhotic. The most frequent causes of liver disease were hepatitis C (41.2%), followed by alcohol (13.2%), hepatitis C/alcohol (11.7%) and non-alcoholic fatty liver disease (5.8%). Decompensated cirrhosis (46.7%) was the main reason for hospital admission. The most often prescribed PHD were antibiotics (67.7%), cardiovascular drugs (34.4%), neuromodulators (26.1%) and anesthetics (19.9%). After exposure, 113 patients (38.8%) presented significant elevated liver enzymes. Surprisingly, PHD were more often prescribed in GI/Liver unit (48.8%) followed by emergency/intensive care unit (28.5%). A total of 65 patients (22%) died, however in neither case was it possible to safely infer causal relationship among PHD, liver enzymes and death.

Conclusion: PHD prescription is frequent in patients with CLD even in a tertiary university hospital and in the gastroenterology and hepatology department, exposing these patients to an additional risk.

Conflict of interest statement: The authors have nothing to disclose.

Keywords: Liver diseases, drug-induced liver injury, acute-on-chronic liver failure, acute liver failure

TABLE 1
Baseline characteristics of all patients, cause of chronic liver disease and drugs.

Characteristics		N	N %
Gender	Woman	136	46.7
	Men	155	53.3
Clinical decompensation	Ascites	121	41.6
	Digestive Bleeding	45	15.5
	Spontaneous Bacterial Peritonitis	29	10
	Impaired kidney function	97	33.3
	Hepatic Encephalopathy (HE)	77	26.5
	ACLF	9	3.1
	Cirrhosis	244	83.8
Etiology of Chronic Liver disease	HCV	120	41.2
	Alcoholic disease	39	13.4
	HCV/alcoholic	34	11.7
	NAFLD	17	5.8
	HBV	11	3.8
	Cholestatic disease	10	3.4
	Autoimmune hepatitis	4	1,4
	HCV + NAFLD	1	0.3
	Other	36	12.3
	No data	14	4.8
Drug	Antibiotics	197	67.7
	NSAIDs	24	8.2
	Antifungal	21	7.2
	Antineoplastic	4	1.4
	Neuromodulators	76	26.1
	Antiviral	19	6.5
	Antithyroid	14	4.8
	Statins	18	6.2
	Antituberculosis	4	1.4
	Cardiovascular	100	34.4
	Anesthetics	58	19.9
Cause of hospitalization	Decompensated cirrhosis	136	46.7
	HCC	54	18.6
	Others	101	34.7
Department of diagnostic	Emergency/ICU	83	28.5
	Hospitalization GAS/HEP	142	48.8
	Hospitalization /Others	66	22.7
Death		65	22

ACLF, acute-on-chronic liver failure; HBV, hepatitis B virus; HCV, hepatitis C virus; NAFLD, Non-alcoholic fatty liver disease; HCC hepatocellular carcinoma; GAS/HEP hepatology; NSAIDs, nonsteroidal anti-inflammatory drugs; ICU, intensive care unit.

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P-12 QUALITATIVE EVALUATION OF NATURAL PRODUCTS USED BY PATIENTS IN A BRAZILIAN HEPATOTOXICITY AMBULATORY

Caio Medina Lopes[1], Andréia de Santana Souza[1], Ademir do Vale[1], Juceni Pereira David[1], Genario Santos[2], Vinicius Santos Nunes[3], Maria Isabel Schinoni[4], Raymundo Paraná[2]

[1] *Faculty of Pharmacy, Federal University of Bahia, Salvador, Brazil*

[2] *Faculty of Medicine, Federal University of Bahia, Salvador, Brazil*
[3] *University Hospital Professor Edgard Santos, Federal University of Bahia, Salvador, Brazil*
[4] *Institute of Health Sciences, Federal University of Bahia, Salvador, Brazil*

Introduction: Drug-induced liver injury (DILI) can be caused by more than 900 drugs, toxins, and herbs, making it a major problem of clinical importance. The use of food supplements and/or herbal products has become increasingly common in the daily lives of the population worldwide. Natural products can be used for a variety of therapeutic purposes, such as treating gastrointestinal disorders and relieving menopausal symptoms.

Aim: To evaluate the hepatotoxic activity of extracts of herbal medicines and dietary supplements used by patients with suspected DILI at a hepatotoxicity ambulatory.

Methods: This is an experimental study and was carried out through chemical screening of plant species and dietary supplements for the determination of phytochemical classes. The samples were obtained of patients had DILI suspect, in ambulatorial care of a University Hospital. The experiments were made at Pharmacognosy laboratory.

Results: 18 samples were received from January 2019 to March 2020. Of these samples, 10 were leaves or stems, and 08 were herbal products or food supplements, with 02 samples being excluded due to contamination. Of the 10 (55%) samples that went to the analysis process, the presence of groups of chemical compounds from secondary plant metabolism was found, where 07 (36%) showed positive results for the presence of triterpenes and steroids. Of these 07 samples, 02 (11%) showed positive results for the presence of alkaloids.

Conclusion: There is a profile of liver damage caused by medicinal plants and the compounds present in them, which are mostly: alkaloids, triterpenes, steroids and anthraquinones. After conducting qualitative tests, triterpenes and steroids were identified in most samples (70%), in addition the presence of alkaloids (28%), suggesting that these can be responsible for the cases of DILI, but more robust studies on these samples are needed to identify chemical structure species.

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P-13 COMPARISON OFF DIFFERENT PROGNOSTIC SCORES FOR PATIENTS WITH CIRRHOSIS HOSPITALIZED WITH SARS – COV 2 INFECTION

Manuel Mendizabal[1,2], Ezequiel Ridruejo[2,3], Federico Piñero[1,2], Margarita Anders[2,4], Martín Padilla[5], Luis G. Toro[6], Aldo Torre[7], Pedro Montes[8], Alvaro Urzúa[9], Esteban Gonzalez Ballerga[10], María Dolores Silveyra[11], Douglas Michelato[12], Javier Díaz[13], Mirta Peralta[2,14], Josefina Pages[1,2], Sandro Ruiz García[15], Isabel Gutierrez Lozano[16], Yuridia Macias[17], Daniel Cocozzella[2,18], Norberto Chavez-Tapia[19], Martín Tagle[20], Alejandra Dominguez[21], Adriana Varón[2,22], Emilia Vera Pozo[23], Fátima Higuera-de la Tijera[24], Carla Bustios[25], Damiá Conte[26], Nataly Escajadillo[27], Andrés J Gómez[28], Laura Tenorio[13], Mauricio Castillo Barradas[29], Maria Isabel Schinoni[2,30], Fernando Bessone[31], Fernando Contreras[32], Leyla Nazal[33], Abel Sanchez[34], Matías García[3], Julia Brutti[11], María Cecilia Cabrera[8], Godolfino Miranda-Zazueta[7], German Rojas[10], Maximo Cattaneo[9], Graciela Castro-Narro[19], Fernando Rubinstein[35], Marcelo O. Silva[1,2]

[1] *Hepatology and Liver Transplant Unit, Hospital Universitario Austral, Pilar, Argentina*
[2] *Latin American Liver Research Educational and Awareness Network (LALREAN)*
[3] *Liver Section, Centro de Educación Médica e Investigaciones Clínicas, Buenos Aires Argentina*
[4] *Hepatology and Liver Transplant Unit, Hospital Alemán, Buenos Aires, Argentina*
[5] *Gastroenterology Unit, Hospital Nacional Guillermo Almenara Irigoyen, Lima, Perú*
[6] *Hepatology and Liver Transplant Unit, Hospitales de San Vicente Fundación de Medellín y Rionegro, Medellín, Colombia*
[7] *Department of Gastroenterology, Instituto Nacional de Ciencias Médicas y Nutrición, Ciudad de México, México*
[8] *Gastroenterology Unit, Hospital Nacional Daniel A. Carrión, Callao, Perú*
[9] *Gastroenterology Section, Internal Medicine Department, Hospital Clínico de la Universidad de Chile, Santiago, Chile*
[10] *Department of Gastroenterology, Hospital de Clínicas José de San Martín, Universidad de Buenos Aires, Buenos Aires, Argentina*
[11] *Department of Internal Medicine, Sanatorio Anchorena, Buenos Aires, Argentina*
[12] *Hospital Especializado en Enfermedades Infecciosas Instituto Couto Maia, Salvador de Bahía, Brazil*
[13] *Hospital Nacional Edgardo Rebagliati Martins, Lima, Perú*
[14] *Intensive Care Unit, Hospital de Infecciosas Francisco J Muñiz, Buenos Aires, Argentina*
[15] *Gastroenterology Unit, Hospital de Víctor Lazarte Echegaray, Trujillo, Perú*
[16] *Department of Internal Medicine, Centro Médico ABC, Ciudad de México, México*
[17] *Department of Medicine, IMSS Hospital General Regional No.1 "Dr. Carlos Mc Gregor Sánchez", Ciudad de México, México*
[18] *Department of Gastroenterology, Hospital Italiano de La Plata, La Plata, Argentina*
[19] *Medica Sur Clinic & Foundation, Ciudad de México, México*
[20] *Gastroenterology Unit, Clínica Anglo-Americana, Lima, Perú*
[21] *Department of Gastroenterology, Hospital Padre Hurtado, Santiago, Chile*
[22] *Liver Unit, Fundación Cardio-Infantil, Bogotá, Colombia*
[23] *Hospital Regional Dr. Teodoro Maldonado Carbo del IESS, Guayaquil, Ecuador*
[24] *Department of Gastroenterology and Hepatology, Hospital General de México "Dr. Eduardo Liceaga", Ciudad de México, México*
[25] *Gastroenterology Unit, Clínica Delgado, Lima, Perú*
[26] *Unidad de Hígado, Hospital Privado de Córdoba, Córdoba, Argentina*
[27] *Gastroenterology Unit, Hospital Nacional Almanzor Aguinaga Asenjo, Chiclayo, Perú*
[28] *Endoscopy and Transplant Service, Hospital Universitario Fundación Santa Fe de Bogotá, Bogotá, Colombia*

[29] *Gastroenterology Unit, Hospital de Especialidades del Centro Médico Nacional La Raza IMSS, Ciudad de México, México*
[30] *Department of Gastroenterology, Hospital Alianza, Bahía, Brazil*
[31] *Department of Gastroenterology, Hospital Provincial del Centenario, Rosario, Argentina*
[32] *Department of Gastroenterology, CEDIMAT, Santo Domingo, Dominican Republic*
[33] *Department of Gastroenterology, Clínica Las Condes, Santiago, Chile*
[34] *Department of Gastroenterology, Hospital Roosevelt, Ciudad de Guatemala, Guatemala*
[35] *Instituto de Efectividad Clínica y Sanitaria, Buenos Aires, Argentina*

Introduction and Objectives: Viral infections have been described to increase the risk of decompensation in patients with cirrhosis. We aimed to determine the impact of SARS-CoV-2 infection on clinical outcome of hospitalized patients with cirrhosis and to compare the performance of different prognostic models for predicting mortality.

Patients: We performed a prospective cohort study including 2211 hospitalized patients with confirmed SARS-CoV-2 infection from April 15, 2020 through October 1, 2020 in 38 Hospitals from 11 Latin American countries. We registered clinical and laboratory parameters of patients with and without cirrhosis. All patients were followed until discharge or death. We evaluated the prognostic performance of different scoring systems to predict mortality in patients with cirrhosis using ROC curves.

Results: Overall, 4.6%(CI 3.7-5.6) subjects had cirrhosis (n=96). Baseline Child-Turcotte-Pugh (CTP) class was assessed: CTP-A (23%), CTP-B (45%) and CTP-C (32%); median MELD-Na score was 19 (IQR 14-25). Mortality was 47% in patients with cirrhosis compared to 16% in those without cirrhosis (P<.0001). Cirrhosis was independently associated to death [OR 3.1(CI 1.9-4.8);P<.0001], adjusted by age, gender, and body mass index >30. The areas under the ROC curves for performance evaluation in predicting 28-days mortality for Chronic Liver Failure Consortium (CLIF-C), North American Consortium for the Study of End-Stage Liver Disease (NACSELD), CTP score and MELD-Na were 0.85, 0.75, 0.69, 0.67; respectively (P<.0001).

Conclusions: SARS-CoV-2 infection is associated with elevated mortality in patients with cirrhosis. CLIF-C had better performance in predicting mortality than NACSELD, CTP and MELD-Na in patients with cirrhosis and SARS-CoV-2 infection.Clinicaltrials.gov: NCT04358380.

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P-14 EVALUATION AND SELECTION OF CANDIDATES FOR LIVER TRANSPLANTATION: AN ECONOMIC PERSPECTIVE. RETROSPECTIVE STUDY

Santiago Rodríguez[1], Fabio Da Motta[2], Giacomo Balbinoto Neto[3], Ajacio Brandão[1,4]

[1] *Graduate Program in Medicine, Universidade Federal de Ciências da Saúde de Porto Alegre (UFCSPA), Porto Alegre, RS, Brazil*
[2] *Santa Casa de Misericórdia de Porto Alegre, Porto Alegre, RS, Brazil*
[3] *Graduate Program in Economics, Universidade Federal de Rio Grande do Sul (UFRGS), Porto Alegre, RS, Brazil, Instituto de Avaliações de Tecnologias e Saúde (IATS), Porto Alegre, RS, Brazil*
[4] *Liver Transplantation Group, Santa Casa de Misericórdia de Porto Alegre, Porto Alegre, RS, Brazil*

Background: Over the next 20 years, the number of patients on the waiting list for liver transplantation (LTx) is expected to increase by 23%, while pre-LTx costs should raise by 83%.

Objective: To evaluate direct medical costs of the pre-LTx period from the perspective of a tertiary care center.

Methods: The study included 104 adult patients wait-listed for deceased donor LTx between October 2012 and May 2016 whose treatment was fully provided at the study transplant center. Clinical and economic data were obtained from electronic medical records and from a hospital management software. Outcomes of interest and costs of patients on the waiting list were compared through the Kruskal-Wallis test. A generalized linear model with logit link function was used for multivariate analysis. *P*-values <0.05 were considered statistically significant.

Results: The costs of patients who underwent LTx ($8,879.83; 95% CI 6,735.24−11,707.27; $P < 0.001$) or who died while waiting ($6,464.73; 95% CI 3,845.75−10,867.28; $P = 0.04$) were higher than those of patients who were excluded from the list for any reason except death ($4,647.78; 95% CI 2,469.35−8,748.04; $P = 0.254$) or those who remained on the waiting list at the end of follow-up.

Conclusion: Although protocols of inclusion on the waiting list vary among transplant centers, similar approaches exist, and common problems should be addressed. The results of this study may help centers with similar socioeconomic realities adjust their transplant policies.

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P-15 WAITING LIST FOR LIVER TRANSPLANTATIOS: CLINICAL AND ECONOMIC BURDEN, RETROSPECTIVE STUDY

Santiago Rodríguez[1], Fabio Da Motta[2], Giacomo Balbinoto Neto[3], Ajacio Brandão[1,4]

[1] *Graduate Program in Medicine, Universidade Federal de Ciências da Saúde de Porto Alegre (UFCSPA), Porto Alegre, RS, Brazil*
[2] *Santa Casa de Misericórdia de Porto Alegre, Porto Alegre, RS, Brazil*
[3] *Graduate Program in Economics, Universidade Federal de Rio Grande do Sul (UFRGS), Porto Alegre, RS, Brazil, Instituto de Avaliações de Tecnologias e Saúde (IATS), Porto Alegre, RS, Brazil*
[4] *Liver Transplantation Group, Santa Casa de Misericórdia de Porto Alegre, Porto Alegre, RS, Brazil*

Background: Burden of disease is an indicator that relates to health status. United States (US) and European epidemiological data have shown that the burden of chronic liver disease has increased significantly in recent decades. There are no studies evaluating the impact of complications of chronic liver disease on the waiting list for deceased donor liver transplantation (LTx).

Objective: To determine the clinical and economic burden of complications of liver disease in wait-listed patients from the perspective of a transplant center.

Methods: The study retrospectively analyzed medical records of 104 patients wait-listed for deceased donor LTx from October 2012 to May 2016 and whose treatment was fully provided at the study transplant center. Clinical data were obtained from electronic medical records, while economic data were collected from a hospital management software. To allocate all direct medical costs, two methods were used: full absorption costing and micro-costing.

Results: The most common complication was refractory ascites (20.2%), followed by portosystemic encephalopathy (12.5%). The mean number of admissions per patient was 1.37 ± 3.42. Variceal hemorrhage was the complication with longest median length of stay (18 days), followed by hepatorenal syndrome (13.5 days). Hepatorenal syndrome was the costliest complication (mean cost of $3565), followed by spontaneous bacterial peritonitis ($2576) and variceal hemorrhage ($1530).

Conclusions: The burden of chronic liver disease includes a great cost for health systems. In addition, it is likely to be even greater as a result of the insidious course of the disease.

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P-18 PREVALENCE AND EPIDEMIOLOGICAL CHARACTERISTICS OF INFECTIONS IN PATIENTS WITH CHRONIC LIVER DISEASE: RETROSPECTIVE ANALYSIS FROM A GENERAL HOSPITAL IN MONTERREY, NUEVO LEON, MEXICO

José Alfredo Salinas-Casanova[1], Daniel Almaguer-Morales[2], Salvador Bruno Valdovinos-Chávez[3], Luis Alonso Morales-Garza[3], María Teresa Sánchez-Ávila[3], Juan Francisco Sánchez-Ávila[3]

[1] *Residente Medicina Interna Programa Multicéntrico, Tecnológico de Monterrey, Monterrey, México*
[2] *Escuela de Medicina y Ciencias de la Salud, Tecnológico de Monterrey, Monterrey, México*
[3] *Profesor Programa de Medicina Interna, Escuela de Medicina y Ciencias de la Salud, Tecnológico de Monterrey, Monterrey, México*

Introduction: Chronic liver disease (CLD) associated with infections has a high short-term mortality. Infections are the first cause of mortality in CLD patients. The information of these patients in Mexico is limited.

Objective: Identify the prevalence of infections in CLD patients in a hospital in Monterrey, Mexico.

Methods: Data was obtained from one hospital (August 2017-October 2019). Patients ≥18 years old with CLD diagnosis by clinical, biochemical, imaging and/or histological criteria were included. Exclusion criteria were patients with incomplete information, antibiotic use <7 days before hospitalization, cancer, or use of immunosuppressant drugs.

Data included demography, clinical presentation, diagnosis, prognostic scores (Child-Turcotte-Pugh -CTP- and the Model for End-Stage Liver Disease-Sodium -MELD-Na-), infections, and in-hospital mortality. Infectious Diseases Society of America (IDSA) criteria were used to define infections.

Descriptive statistics, Chi squared test, Mann-Whitney U test, and Logistic regression were used to analyze data.

Results: 393 patients aged 55 years old (54.6±11.4) were included, 81% male patients. 79% were diagnosed with CLD in hospitalization. 55% were CTP Class C and 69% had a MELD-Na >17.

92 patients had an infection. 76% were community acquired. The main cause of infections was spontaneous bacterial peritonitis (30.4%). 212 cultures were obtained, but only 22 isolated a microorganism; 50% reported E. Coli, and 54% were multidrug-resistant bacteria.

Mortality was 25%. Patients with infections had a higher mortality. Infections were related with a worst prognostic score: CTP class C (OR 3.78, CI 95% [1.10−12.93]; p=0.034); MELD-Na >17 (OR 2.07, CI 95% [1.16−3.68]; p=0.013). Infections had a higher risk of death (OR 4.38, CI 95% [2.41−6.75]; p<0.0001).

Conclusion: Prevalence of infections in CLD patients is similar to other countries. These infections are associated with a worst CLD prognosis and have a four-fold risk of mortality.

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P-19 ANTI-RIBOSOMAL P (ANTI-P) ANTIBODIES IN AUTOIMMUNE HEPATITIS PATIENTS

Clarisse de Almeida Gallo[1], Alessandra Delavance[3], Antônio Eduardo Silva[1], Luis Eduardo Andrad[2], Ivonete Silva[1], Maria Lúcia Ferraz[1]

[1] *Department of Gastroenterology Universidade Federal de São Paulo, Brazil*
[2] *Department of Reumathology Federal University of São Paulo, Brazil*
[3] *Research and Development Division Fleury Medicine and Health Labs, São Paulo, Brazil*

Background and Aims: Few studies have investigated the occurrence of anti-ribosomal P antibody (Anti-P) in autoimmune hepatitis (AIH) with controversial results. The rational to evaluate this occurrence is based on the partial overlap of clinical and pathological features of AIH and systemic lupus erythematosus (SLE), for which anti-P is a diagnostic biomarker. In face of the controversial results obtained, this study aimed to contribute by evaluating the frequency of anti-P determined by two different immunoassays in a cohort of AIH patients.

Method: One-hundred seventy-seven patients with AIH confirmed diagnosis were screened, and 142 were evaluated for the presence of anti-P antibodies. Samples were analyzed by two different immunoassays, namely enzyme-linked immunosorbent assay (ELISA) and chemiluminescence (CLIA). Positive samples were submitted to western blot assay (WB). A comparison was done with a group of 60 SLE patients.

Results: Anti-P was found in 5/142 AIH patients (3.5%) using CLIA. No AIH patient was anti-P-positive using ELISA. Among the five positive AIH samples, one was negative, two weakly positive, and two were anti-P-positive in WB. Anti-P was found in 10/60 SLE patients (16.7%) and presented higher CLIA units than AIH samples.

Conclusion: Anti-P antibody was confirmed to occur in AIH at a low frequency and serum levels were lower than those observed in SLE. This marker seems not to be useful as a diagnostic tool for AIH patients.

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P-20 METABOLIC ASSOCIATED FATTY LIVER DISEASE: FIBROSIS AND SARCOPENIA FREQUENCIES

Priscila Pollo Flores, Débora Vieira Soares, Maria Auxiliadora Saad, Clara Petrucio, Wallison Rodrigues Gonçalves, Caio Oliveira Menezes, Gabriella Mundim, Gabriella Santos, Sofia Devito, Maria Clara Pontes, Vinícius Jardim, Gabriel Alverca Meyas, Vanessa da Costa Rodrigues, Gabriela Muller Machado

Universidade Federal Fluminense, Brazil

Introduction: Metabolic fatty liver (MAFLD) is a global health problem with a prevalence of about 25%. It consists in a multissystemic disease correlated with many others comorbidities. Progressive disease or steatohepatitis is associated with worst outcomes, more inflammation and fibrosis. Liver fibrosis stratifies patients with more

propensity for cardiovascular deaths and cirrhosis. Nowadays, elastography is able to detect safely fibrosis. Risk factors identification which are associate with progressive disease and cirrhosis complications allow adequate treatment for MAFLD.

Objectives: Estimate and evaluate liver fibrosis and sarcopenia in MAFLD present in high risk patients – obesity, metabolic syndrome and diabetes 2 type diseases. Identification of risk factors for progressive disease.

Methods: All patients enrolled were submitted to clinical, antropometric assessment and blood tests. The non-invasive assessment of MAFLD and fibrosis stage was performed by ultrasound, FLI-score and elastography. Sarcopenia was evaluated by Dual energy X-ray absorptiometry (DXA) – Baungarten index- and by bioimpedancy. Numerical variables were analyzed by Mann-whitney and Anova tests. Categorical variables were analysed by Fischer's exact test.

Results: 42 patients were included until now, 87% women e 13% men; Median age was 66 (52-61) years. Three patients did not had steatosis(n=26). Eight participants (31%) had fibrosis >=2. One patient was classified as sarcopenic, Median IMC was 31,8 Kg/m ^{2} (22,8-44); Coefficient attenuation parameter (CAP), ferritin and D vitamin were not different between the fibrosis and non fibrosis groups. Fibrosis was associated with higher AST, p value of 0,04; ALT and fibrosis was not correlated, p value of 0,07.

Conclusion: All considerations must be taken with caution because of the small group of patients.The steatosis high risk study population: metabolic syndrome, obesity and diabetes type 2 patients had a higher fibrosis frequency than in general population, 31%, and no correlation with sarcopenia in this small population. The AST level was correlated with fibrosis in steatosis group patients.

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P-21 BONE MASS, VITAMIN D LEVELS AND NONALCOHOLIC FATTY FIVER DISEASE

Clara Petrucio, Wallison Rodrigues Gonçalves, Caio Oliveira Menezes, Gabriel Alverca Meyas, Vanessa da Costa Rodrigues, Flavio Marques de Oliveira Filho, Maria Auxiliadora Saad, Priscila Pollo Flores, Débora Vieira Soares

Departamento de Medicina Clínica da Faculdade de Medicina da Universidade Federal Fluminense (UFF), Niterói, Brazil

Background and Aims: Nonalcoholic fatty fiver disease (NAFLD) is a multisystemic disease that can affect several systems and tissues. Recently, low bone mass density (BMD) and vitamin D deficiency were been associated with the severity of NAFLD and there has been significant scientific interest in the relationship between vitamin D, BMD and NAFLD. This study aimed to assess the status of vitamin D and BMD in liver fibrosis and in NAFLD.

Methods: Adults without vitamin D replacement and with established risk factors for the development of NAFLD were selected, such as: obesity, dyslipidemia, type 2 diabetes and metabolic syndrome. The non-invasive assessment of NAFLD and degrees of fibrosis was performed by ultrasound (US-FLI) and ultrasound elastography. BMD was measures with dual energy X-ray absorptiometry (DXA). The 25 (OH)D3 was determined using chemiluminescent immunoassay technology.

Results: A total of 42 participants were enrolled and hepatic steatosis was present in 24. All data are presented as median (IQR) or n (%). Age 66 (52-61) years, 36 (85.7%) were women. The median of 25 (OH)D3 levels was 21 (18-28) ng/mL. The frequency of liver fibrosis, low levels of vitamin D (< 20 ng/mL) and low BMD was, respectively: 29%, 44% and 61%. We found 5.5% osteoporosis, 50% osteopenia and 5.5 low BMD for age.

Conclusion: The frequency of low BMD and low Vit D levels is higher in the population with steatosis and high incidence of liver fibrosis than in the general Brazilian population.

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P-22 ANALYSIS OF FEATURES ASSOCIATED WITH DIFFICULTY IN SCREENING AND EARLY DIAGNOSING HEPATOCELLULAR CARCINOMA IN RISK PATIENTS

João Eugênio Loureiro Lopes[1], Júlia Antunes RizzoBicalho[1], Livia Zardo Trindade[2], Mariana Poltronieri Pacheco[2]

[1] *Medicine student on Escola Superior de Ciências da Santa Casa de Misericórdia de Vitória, Vitória, Brasil*
[2] *Gastroenterolgy and hepatology professor on Escola Superior de Ciências da Santa Casa de Misericórdia de Vitória, Vitória, Brasil*

Introduction: Several barriers to access hepatocellular carcinoma (HCC) screening in Brazil and the large number of patients diagnosed at advanced disease stages, without prospect of curative treatment, are indicatives that access to early HCC diagnosis and treatment is not equitably guaranteed for entire population.

Aims: The aim of the current study is to investigate the determining factors hindering the access to HCC screening and early diagnosis, based on abdominal ultrasound (US) application to risk patients.

Methods: Descriptive and longitudinal study carried out in reference outpatient clinic, based on questionnaire application to patients at risk for HCC.

Results: Fifty patients (mean age of 59 years), whose main disease etiology lied on alcohol, and hepatitis B and C viruses, were evaluated; 76% of them underwent US monitoring on a regular basis and 58% understood the importance of undergoing such an examination. The main barriers to access examination comprised scheduling (25%) and financial issues (12.5%). Eight patients were diagnosed with HCC (16% of sample), 50% of them were diagnosed at the first consultation and 37.50% did not know about the importance of such diagnosis (Table); curative treatment was no longer applicable to 62.50% of these patients.

Conclusion: It is worth emphasizing the essential role played by half-yearly screening in the early diagnosis and curative treatment of HCC. It is necessary developing policies focused on identifying and placing HCC patients at risk in health surveillance programs, as well as on providing greater access to, and education about the important role played by these exams.

Table Analysis of epidemiological profile of patients diagnosed with HCC in a hepatology service.

Analyzed variables	Groups		All cases (n = 8)
	Non-cirrhotic (n = 2)	Cirrhotic (n = 6)	
Male sex n (%)	2 (25)	1 (12.5)	3 (37.5)
Age (mean, in years)	47.5	61.6	58.1
Chronic liver disease etiology n (%)			
Alcohol		2 (25)	2 (25)
HBV	1 (12.5)	1 (12.5)	2 (25)
HCV	1 (12.5)		1 (12.5)
HCV + alcohol		1 (12.5)	1 (12.5)
Frequency of consultations n (%)			

(*continued*)

(*Continued*)

Table Analysis of epidemiological profile of patients diagnosed with HCC in a hepatology service.

Analyzed variables	Groups		All cases (n = 8)
	Non-cirrhotic (n = 2)	Cirrhotic (n = 6)	
1st time	1 (12.5)	3 (37.5)	4 (50)
≤ 6 months	1 (12.5)	2 (25)	3 (37.5)
>12 months		1 (12.5)	1 (12.5)
Regular follow-up based on US n (%)			
Yes	1 (12.5)	4 (50)	5 (62.5)
No	1 (12.5)	2 (25)	3 (37.5)
Patient understands the importance of undergoing US n (%)			
Yes	1 (12.5)	4 (50)	5 (62.5)
No	1 (12.5)	2 (25)	3 (37.5)
BCLC at diagnosis n (%)			
BCLC 0	1 (12.5)		1 (12.5)
BCLC A		2 (25)	2 (25)
BCLC C	1 (12.5)		1 (12.5)
BCLC D	1 (12.5)	3 (37.5)	4 (50)
AFP values (ng/ml) at diagnosis (min ± max)	2 ± 80,000	73 ± 481	

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P-23 SEROLOGICAL PROFILE OF HEPATITIS B AND C IN REUMATHOLOGIC PATIENTS IN USE OF IMMUNOSSUPRESSIVE THERAPY

Gabriela Azevedo Solino[1], Camilla Bortolini Chamoun[1], Victoria Caroline Danielle Da Silva[1], Valquíria Garcia Dinis[2], Mariana Poltronieri Pacheco[3]

[1] *Medicine student on Escola Superior de Ciências da Santa Casa de Misericórdia de Vitória, Vitória, Brasil*
[2] *Rheumatology professor on Escola Superior de Ciências da Santa Casa de Misericórdia de Vitória, Vitória, Brasil*
[3] *Gastroenterolgy and Hepatology professor on Escola Superior de Ciências da Santa Casa de Misericórdia de Vitória, Vitória, Brasil*

Introduction: Autoimmune rheumatologic diseases are treated with immunosuppressive therapy to decrease inflammatory response reducing symptomatology and inducing the diseases remission. This therapy interferes in innate and/or adaptive immune response, elevating the risk of hepatitis B (HBV) reactivation and increasing viremia in patients infected by hepatitis C (HCV).

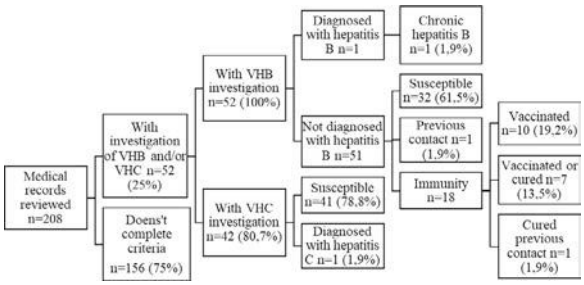
Objective: To evaluate HBV and HCV`s serologic profile in patients that use immunosuppressive therapy in the rheumatology department in a tertiary hospital.

Methods: Descriptive transversal clinical study, based in data collected from patients` medical records using a form elaborated by the authors.

Results: Two hundred-eight medical records were analyzed and of these fifty-two patients (25%) had an investigation for HBV and/or HCV (Figure), with a case of HBV reactivation and a diagnosis of HCV. Of those tested, 75% were women, with a mean aged 48.2 years and the most prevalent diagnoses being systemic lupus erythematosus and rheumatoid arthritis. The most used therapies are methotrexate, hydroxychloroquine and prednisone.

Conclusion: There were low rates of HBV reactivation and of exacerbation of HCV, however few patients were adequately tested for these diseases. Therefore, the authors infer that HBV and HCV evaluation in patients in use of immunosuppressive therapy is a measure still to be consolidated amongst rheumatologists.

Image: Serological profile of HBV and HCV in patients from the rheumatology department.



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P-24 FREQUENCY AND SEVERITY OF LIVER INVOLVEMENT IN PREGNANT WOMEN ADMITTED TO AN INTENSIVE CARE UNIT WITH HYPERTENSIVE DISORDERS OF PREGNANCY

J. Castro, M. De Lucca, L. Codes, M.A. Soares, L. Lyrio, P. Bittencourt

Hospital Português Salvador Bahia, Brazil

Introduction: The hypertensive disorders of pregnancy(HDP) are major causes of maternal and perinatal morbidity-mortality worldwide.

Aims: To evaluate the frequency and severity of liver involvement in pregnant women with HDP, assessing its outcomes.

Methods: A total of 210 parturients were retrospectively evaluated. The frequency of any type of liver involvement was investigated, and its occurrence correlated with maternal-fetal mortality and prematurity.

Results: The most common symptoms were abdominal pain (100; 47.6%) and headache (83; 39.5%). Most patients had gestational hypertension defined as severe (n = 184), including 6 (2.9%) women progressing to eclampsia. Changes in liver enzymes and HELLP syndrome were observed in 124 (59%) and 19 (9%) patients, respectively. Subcapsular hemorrhage and spontaneous hepatic rupture were identified in one woman who died. No patient had definitive diagnosis for acute fatty liver of pregnancy, neither acute liver failure. 62% of deliveries occurred before 37 weeks. Fetal mortality was observed in 6 (2.9%) cases. It was associated with gestational age (29.3±5.7 vs.34.01 ±4, p = 0.006), the occurrence of pulmonary edema (16.7% vs. 0.5%, p= 0.005) and renal insufficiency (33% vs. 5%, p= 0.04). Multiparity (68%vs, 30%, p=0.0001), previous history of hypertension (22.4 %vs 12.3 %, p=0.05), uric acid concentration (6.7±1.6 vs 5.9±1.5, p= 0.005) and renal dysfunction (7.5% vs. 1.4 % vs. p=0.05) were associated with prematurity. There was no significant correlation between prematurity or maternal-fetal mortality and liver involvement.

Conclusion: HDP form a spectrum of disease. Early recognition and multidisciplinar support are essential in order to ensure better outcomes.

Keywords: Pregnancy, liver, hypertensive disorders, pre-eclampsia, eclampsia
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P-25 SLOWER FIBROSIS PROGRESSION IN HEPATITIS C HEMOPHILIAC PATIENTS?

Dauana O. Bastos, Christini Emori, Sandra V. Antunes, Flavia Appel, Maria Lucia Ferraz

Universidade Federal de São Paulo, São Paulo, Brazil

Introduction: The improvement in the treatment of hemophilia from the 90′s, as well as the advent of interferon-free therapy against HCV enabled a better evolution of these special group of patients. However, the impact of hemophilia on the progression of liver fibrosis is still not completely understood.

Objectives: To evaluate the progression of liver fibrosis in hemophiliac patients with HCV using non-invasive methods after ten years of follow-up.

Casuistic and Method: Retrospective cohort study of hemophiliac patients with HCV evaluated in 2007 and reassessed 10 years later (2017/2018). Hepatic fibrosis was indirectly evaluated by APRI and transient hepatic elastography by Fibroscan ® - EHT).

Results: Sixty-six hemophiliac patients were evaluated in 2007 (all men, median age 31.5 years, 87.9% hemophilia A). Forty-two patients could be reevaluated in 2017/2018. Thirty-three patients were treated with 90.9% SVR; thus, after 10 years, 30 patients were non-viremic and 12 were viremic (3 without SVR and 9 untreated). APRI values were low in both periods but showed a significant reduction in treated patients (0.36 vs 0.20, p <0.001), remaining stable in non-treated (0,61 vs 0,51, p=NS). Fibrosis by EHT was assessed only in 2017/2018 and also showed results compatible with low stages of fibrosis in treated and even in non-treated patients (4.75 and 5.25 kPa, respectively).

Conclusions: After ten years of follow-up the results suggest a slower progression and a more benign evolution of hepatic fibrosis among hemophiliacs. Antiviral therapy against HCV showed an elevated response rate, similar to the general population.

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P-26 PORTAL VENOUS THROMBOSIS IN TRANSPLANTED CIRRHOTIC PATIENTS AT THE "HOSPITAL CLÍNICO UNIVERSIDAD DE CHILE"

V.N. Henríquez Auba[1], F. Ramirez[1], M. Fabres[2], P. Abarca[2], B. Astrosa[2], D. Vera[1], J.C. Diaz[3], J. Castillo[3], H. Lembach[3], A. Sauré[3], M. Cattaneo[1], J. Poniachik[1,3], A. Urzua[1,3]

[1] *Universidad de Chile, Sección de Gastroenterología, Santiago, Chile*
[2] *Universidad de Chile, Santiago, Chile*
[3] *Universidad de Chile, Unidad de Trasplantes, Santiago, Chile*

Background: Portal vein thrombosis (PVT) is a frequent complication in cirrhotic patients on the waiting list for liver transplantation (LT); this is associated with increased post-LT mortality.

Objective: Characterize the presence of PVT in patients with LT.

Methods: Retrospective observational study between January 1, 2014 and February 28, 2018. Clinical records, laboratory and images were reviewed.

Results: 82 patients were included; Age 58 (21-71) years; Etiology: non-alcoholic fatty liver 40.2%, alcoholic liver disease 20.7%, autoimmunity 13.4%, and hepatitis C 8.5%; Child-Pugh: 7.3% A, 30.4% B and 62.2% C; MELD-Na 22 (8-40). PVT was diagnosed before or during LT in 26.8%: Child A 16.6%, B 16.0%, and C 33.3%; MELD-Na 25 (12-40) in those with PVT vs 21 (8-40) in those without PVT (non significant, NS); 34% had hepatocarcinoma (32.1% with PVT vs. 24.4% without PVT; NS). Diagnosis of PVT was 77.2% pre LT and almost 1/4 during transplant surgery. The extension of the PVT was complete occlusion in 11.7%, partial in 70.5%; 11.7% had only intrahepatic branches compromised (1 case with incomplete data). In 76% of the patients anticoagulation (AC) was started during waiting list; none had complications associated to AC. Complete re-canalization was achieved in 53.8%. The 5-year survival was 70%; 71.7% in those without PVT and 63.6% in those with PVT (NS).

Conclusion: PVT is a frequent complication in cirrhotic patients in the waiting list who received LT. Most receive AC without complications. The 5-year survival in this series was similar despite the presence of PVT.

Selected subject area: Liver Transplantation.

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P-27 ALTERATION IN LIVER FUNCTION TESTS AMONG PATIENTS HOSPITALIZED FOR COVID-19: A MULTICENTRIC STUDY IN PERU

Ivania Marín Dueñas[1], Jenny Vega[1], Hugo Carrillo-Ng[1], Isabel Veramendi-Schult[2], Ricardo Zavaleta Alva[2], Luis Vásquez[3], Zeneida Gonzales-Soler[4], Hellen Agurto-Lescano[5], Jorge Garavito Rentería[1], Adelina Lozano[1]

[1] *Universidad Peruana Cayetano Heredia, Unidad de Hígado, Hospital Nacional Arzobispo Loayza*
[2] *Hospital Hipólito Unanue*
[3] *Hospital Santa Rosa – Piura*
[4] *Hospital Cayetano Heredia – Piura*
[5] *Clínica Sanna San Borja*

Introduction: COVID-19 affects the liver, causing alteration in liver biochemistry tests such as aspartate transferase (AST), alanine transferase (ALT), alkaline phosphatase (ALP), total bilirubin and albumin.

Objective: To determine the prevalence of alteration in liver functions tests and associated factors for severity among peruvian COVID-19 patients.

Methods: A descriptive, retrospective and cross-sectional study was performed in 4 public hospitals in Peru. Patients admitted to hospitalization wards and intensive care units with a diagnosis COVID-19 were enrolled. The evaluation of AST, ALT, ALP, total bilirrubin and albumin was performed. Associations with demographic and medical data were assessed.

Results: 1100 patients were enrolled, of which 81.7% had altered liver function tests. Only 2.8% of the patients had cirrhosis and 2.1% hepatitis B/C virus. AST and ALT were altered at admission in 64.7% and 63.7%, of the patients respectively. Factors associated with liver injury were: being female OR=0.53 (95% CI: 0.39-0.73; p<0.01), dyslipidemia OR=1.72 (95% CI: 1.10-2.70; p=0.01), previous medication OR=1.56 (95% CI: 1.12 -2.16, p<0.01) and fever OR=1.43 (95% CI: 1.03-1.199, p=0.03). Disease severity was associated with levels of AST and ALT (p<0.01). Patients taking self-medication OR=1.56 (95% CI: 1.12-2.16; p<0.01) and paracetamol OR= 1.41 (95% CI:1.01-1.98; p=0.04) had higher risk of liver injury. Meanwhile, corticosteroids OR=0.55 (95% CI: 0.38-0.78; p<0.01) and enoxaparin OR=0.53 (95% CI: 0.35-0.81; p<0.01) were protective factors.

Conclusions: Peruvian patients with COVID-19 presented high prevalence of alteration in liver function tests, high levels of AST and ALT were related to disease severity.

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P-28 BODY COMPOSITION MEASUREMENT AND NONALCOHOLIC FATTY LIVER DISEASE

Maria Auxiliadora Nogueira Saad,
Débora Vieira Soares, Priscila Pollo Flores,
Rosa Leonora Salerno Soares,
Vinicius César Jardim Pereira,
Maria Clara Brito Pontes

Universidade Federal Fluminense, Brazil

Introduction: Non-alcoholic fatty liver disease (NAFLD) is the most frequent cause of liver disease, with a worldwide prevalence of 30%. The association between NAFLD and obesity, diabetes mellitus and metabolic syndrome is well established. It is estimated that approximately 76% of individuals with obesity, mainly visceral obesity, have NAFLD. Previous studies have shown that anthropometric measures to assess body fat, such as body mass index, neck circumference and waist circumference are predictors of NAFLD.

Objective: To assess the prevalence of NAFLD in obese individuals and the role of anthropometric measurements that estimate visceral fat as predictors of NAFLD.

Methods: Adults, over 18 years old, assisted in Antônio Pedro University Hospital, with risk of NAFLD (pre-diabetes, diabetes mellitus, metabolic syndrome, and obesity). All participants signed an informed consent form. Patient's clinical information, anthropometric, metabolic profiles were assessed. Non-invasive assessment of NAFLD was performed by ultrasound.

Results: The study group consisted of 40 subjects with predominance of females (87.5%). The prevalence of obesity was 55%. Higher diabetes and dyslipidemia in males (60% and 60%, respectively) when compared to females (51.4%, and 45.4%, respectively). Hepatic steatosis was present in 48.5% of women and 60% of men. Neck and waist circumference were greater in males (median 42 cm and 106.9 cm).

Conclusion: High prevalence of patients with obesity, fatty liver and metabolic diseases. High anthropometric measurements of visceral obesity in both sexes, demonstrating to be an important risk factor for NAFLD.

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P-29 CLINICAL FEATURES OF PRIMARY BILIARY CHOLANGITIS IN BRAZIL

Guilherme G.L. Cançado[1,2], Eduardo L.R. Cançado[3], Maria L.G. Ferraz[4], Cristiane A. Villela-Nogueira[5], Debora R.B. Terrabuio[3], Michelle H. Braga[3], Mateus J. Nardelli[1], Luciana C. Faria[1], Nathalia M.F. GOMES[4], Elze M.G. Oliveira[4], Vivian Rotman[5], Maria Beatriz Oliveira[6], Simone M.C.F. Cunha[7], Daniel F.C. Mazo[8], Liliana S.C. Mendes[9], Claudia A.P. Ivantes[10], Valéria F.A. Borges[11,12], Fabio H.L. Pace[13], Mario G. Pessoa[3], Izabelle V. Signorelli[14], Gabriela P. Coral[15], Paulo L. Bittencourt[16,17], Cynthia Levy[18], Cláudia A. Couto[1], members of the Brazilian Cholestasis Study Group Consortium

[1] *Instituto Alfa de Gastroenterologia, Hospital das Clínicas da Universidade Federal de Minas Gerais, Belo Horizonte, Brazil*
[2] *Hospital da Polícia Militar de Minas Gerais, Belo Horizonte, Brazil*
[3] *Departamento de Gastroenterologia, Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil*
[4] *Disciplina de Gastroenterologia, Universidade Federal de São Paulo, São Paulo, Brazil*
[5] *Hospital Universitário Clementino Fraga Filho, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil*
[6] *Ambulatório Municipal de Hepatites Virais de São José dos Campos, São José dos Campos, Brazil*
[7] *Hospital Universitário Professor Edgard Santos, Universidade Federal da Bahia, Salvador, Brazil*
[8] *Disciplina de Gastroenterologia, Faculdade de Ciências Médicas, Universidade Estadual de Campinas, Campinas, Brazil*
[9] *Hospital de Base do Distrito Federal, Brasília, Brazil*
[10] *Serviço de Gastroenterologia, Hepatologia e Transplante Hepático, Hospital Nossa Senhora das Graças, Curitiba, Brazil*
[11] *Instituto de Gastroenterologia, Endoscopia e Proctologia, Uberlândia, Brazil*
[12] *Universidade Federal de Uberlândia, Uberlândia, Brazil*
[13] *Hospital Universitário, Universidade Federal de Juiz de Fora, Juiz de Fora, Brazil*
[14] *Hospital Universitário Cassiano Antônio Moraes, Universidade Federal do Espírito Santo, Vitória, Brazil*
[15] *Irmandade da Santa Casa de Misericórdia de Porto Alegre, Porto Alegre, Brazil*
[16] *Hospital Português, Salvador, Brazil*
[17] *Escola Bahiana de Medicina e Saúde Pública*
[18] *Division of Digestive Health and Liver Diseases, University of Miami Miller School of Medicine, Miami, Florida, United States of America*

Introduction: Little is known about primary biliary cholangitis (PBC) in Latin America, where this disease is thought to be rare.

Objectives: To analyze clinical and biochemical features of Brazilian PBC patients.

Methods: The Brazilian Cholestasis Study Group multicentre database was reviewed to assess demographics, clinical and laboratory features from PBC patients.

Results: 562 patients with PBC were included; 80 (14.2%) had overlapping syndrome with autoimmune hepatitis and were excluded. Most subjects were middle-aged women (95%; mean age 51 ± 11 years) with classical symptoms of pruritus and/or fatigue (65%) and jaundice (22%). Mean time to diagnosis was 2.5 years. Prevalence of antimitochondrial (AMA) and antinuclear antibodies was 82.8% and 72.1%, respectively. Concurrent autoimmune diseases occurred in 18.9%, mainly Hashimoto's thyroiditis and Sjogren syndrome. Celiac disease was diagnosed in 1:80 (1.2%). Osteopenia and osteoporosis were demonstrated in 42% and 26%, respectively. Liver pathology at diagnosis was available for 326 patients (67.6%). One third of them had advanced PBC. After a mean follow-up of 6.2 ± 5.3 years, 32% of the subjects had clinical, laboratory or imaging evidence of cirrhosis. Requirement for liver transplantation and liver-related deaths were reported in 6.6% and 3.2% of the patients, respectively. Hepatocarcinoma was diagnosed in 1.9% of the subjects.

Conclusion: A higher predominance of PBC among females, compared to other populations, was observed, while AMA positivity was lower. Concurrent autoimmune, celiac and bone diseases are common and should be adequately screened. Prolonged time to diagnosis and high prevalence of advanced liver disease might reflect difficulties in health care access in Brazil.

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P-30 IMPACT OF PUBLIC HEALTH POLICIES ON ALCOHOL-ASSOCIATED LIVER DISEASE IN LATIN AMERICA: AN ECOLOGICAL MULTI-NATIONAL STUDY

Antonio Díaz Luis[1], Francisco Idalsoaga[1], Eduardo Fuentes-López[2], Andrea Márquez[3], Carolina A. Ramírez[4], Juan Pablo Roblero[5], Araujo Roberta C.[6], Fátima Higuera – de – la – tijera[7], Luis Guillermo Toro[8], Galo Pazmiño[9], Pedro Montes[10], Nelia Hernandez[11], Manuel Mendizabal[12], Oscar Corsi[13], Catterina Ferreccio[14], Mariana Lazo[15], Mayur Brahmania[16], Ashwani K. Singal[17], Ramon Bataller[18], Marco Arrese[1], Juan Pablo Arab[1,*]

[1] *Departamento de Gastroenterología, Escuela de Medicina, Pontificia Universidad Católica de Chile, Santiago, Chile*
[2] *Departamento de Ciencias de la Salud, Facultad de Medicina, Pontificia Universidad Católica de Chile, Santiago, Chile*
[3] *Escuela de Medicina, Universidad Anáhuac Mayab, Mérida, México*
[4] *Departamento de Anestesiología, Clínica Las Condes, Santiago, Chile*
[5] *Sección Gastroenterología, Hospital Clínico Universidad de Chile, Escuela de Medicina Universidad de Chile, Santiago, Chile*
[6] *Gastroenterology Division, Ribeirão Preto Medical School, University of São Paulo, 14048-900 Ribeirão Preto, SP, Brazil*
[7] *Servicio de Gastroenterología, Hospital General de México "Dr. Eduardo Liceaga", Ciudad de México, México*
[8] *Hepatology and Liver Transplant Unit, Hospitales de San Vicente Fundación de Medellín y Rionegro, Colombia*
[9] *Department of Gastroenterology, Pontificia Universidad Católica del Ecuador, Quito, Ecuador*
[10] *Department of Gastroenterology, Hospital Nacional Daniel A. Carrión. Callao, Perú*
[11] *Clínica de Gastroenterología, Hospital de Clínicas, Facultad de Medicina, Universidad de la República Uruguay, Montevideo, Uruguay*
[12] *Hepatology and Liver Transplant Unit, Hospital Universitario Austral, Buenos Aires, Argentina*
[13] *Departamento de Medicina Interna, Escuela de Medicina, Pontificia Universidad Católica de Chile, Santiago, Chile*
[14] *Public Health Department, School of Medicine, Pontificia Universidad Católica de Chile, Santiago, Chile. Advanced Center for Chronic Diseases, ACCDis, Santiago, Chile*
[15] *Department of Community Health and Prevention, Dornsife School of Public Health, Drexel University, Philadelphia, Pennsylvania; Urban Health Collaborative, Dornsife School of Public Health, Drexel University, Philadelphia, Pennsylvania; Division of General Internal Medicine, Johns Hopkins University School of Medicine, Baltimore, Maryland*
[16] *Department of Medicine, Division of Gastroenterology, Western University, London Health Sciences Center, London, Ontario, Canada*
[17] *Department of Medicine, University of South Dakota Sanford School of Medicine, Division of Transplant Hepatology, Avera Transplant Institute, Sioux Falls, SD, United States*
[18] *Center for Liver Diseases, Division of Gastroenterology, Hepatology and Nutrition, University of Pittsburgh Medical Center, PA, USA*

Introduction: Alcohol-associated liver disease (ALD) is the leading cause of liver-related mortality in Latin-America, yet the impact of public health policies (PHP) on alcohol consumption and liver disease is unknown.

Objectives: To assess the association between alcohol PHP, alcohol consumption, and cirrhosis in Latin-American countries.

Methods: We performed an ecological multi-national study including 20 countries in Latin-America (628,466,088 inhabitants). We obtained country-level socio-demographic information from the World Bank Open Data source. Alcohol-related PHP data for countries in Latin-America were obtained from the World Health Organization (WHO) Global Information System of Alcohol and Health (GISAH). We used a fixed-effects model to estimate proportions and multiple linear regression models to examine the association between the number of PHP and outcomes (alcohol intake, and deaths due to cirrhosis & traffic injuries).

Results: The prevalence of obesity was 27% and 26.1% among males and females, respectively. The estimated alcohol per capita consumption (APC) among the population 15 years old was 6.8 liters of pure alcohol (5.6 recorded and 1.2 unrecorded). The countries with the highest APC were Uruguay (10.8 liters), Argentina (9.8 liters), and Chile (9.3 liters). The overall prevalence of alcohol use disorders (AUD) was 4.9%. ALD was the main cause of cirrhosis in 64.7% of males and 40.0% of females. A total of 19 (95%) countries have at least one alcohol-related PHP on alcohol. The most frequent PHP were: limiting drinking age (95%), tax control (90%), alcohol and driving (90%), and government monitoring systems (90%)(Table). A higher number of alcohol-related PHP was associated with a lower odds of AUD (OR 0.83, 95%CI:0.73-0.94; p=0.004), lower mortality due to ALD (OR 0.18, 95%CI:0.07-0.46, p<0.001), and lower mortality due to alcohol-attributable road traffic injuries (OR 0.84, 95%CI:0.71-0.98; p=0.028).

Conclusion: Our study demonstrates that countries with more alcohol-related PHP have lower alcohol per capita consumption, alcohol-associated cirrhosis, and deadly alcohol-attributable road traffic injuries. These results highlight the value of alcohol control policies in all countries to reduce the burden of excessive alcohol consumption.

Table 1
The development of alcohol public health policies among Latin American countries. The public health policies were categorized according to the World Health Organization classification.

Country	National plan to fight harmful consequences of alcohol	Taxes control, pricing policies	Drinking age and youth focus policies	Driving-related alcohol policies	Control over advertising and promotion	Government monitoring systems	Restrictions to alcohol access	National license and production and selling control	Total
Argentina	Yes	Yes	Yes	Yes	Yes	Yes	No	No	**6**
Bolivia	No	Yes	Yes	Yes	Yes	No	Yes	No	**5**
Brazil	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**8**
Chile	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**8**
Colombia	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	**7**
Costa Rica	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**7**
Cuba	No	No	Yes	Yes	No	Yes	Yes	Yes	**5**
Dominican Republic	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**7**
Ecuador	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**7**
El Salvador	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**7**
Guatemala	No	Yes	Yes	No	No	Yes	Yes	Yes	**5**
Haiti	No	No	No	No	No	No	No	No	**0**
Honduras	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**7**
Mexico	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**8**
Nicaragua	No	Yes	Yes	Yes	No	Yes	Yes	Yes	**6**
Panama	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**7**
Paraguay	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	**7**
Peru	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**7**
Uruguay	No	Yes	Yes	Yes	No	Yes	Yes	No	**5**
Venezuela	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**7**
Total	**6 (30%)**	**18 (90%)**	**19 (95%)**	**18 (90%)**	**15 (75%)**	**18 (90%)**	**16 (80%)**	**16 (80%)**	

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P-31 NORMAL TRANSAMINASES IN OBESE PATIENTS WITH METABOLIC ASSOCIATED STEATOHEPATITIS

Adelina Lozano[1], Hugo Carrillo-Ng[2], Cesar Castro[1], Zenaida Lozano[1], Lil Saavedra[3], Gustavo Salinas[3]

[1] *Hospital Nacional Arzobispo Loayza*
[2] *Universidad Peruana Cayetano Heredia*
[3] *Clinica Avendaño*

Introduction: Metabolic associated fatty liver disease (MAFLD) and metabolic associated steatohepatitis (MASH) are the most frequent causes of chronic liver disease. Measurement of transaminases may not correlate with the severity of histopathological changes.

Objective: We aimed to identify the frequency of normal and elevated transaminases in obese patients with MASH, as well as their clinical, biochemical and histological characteristics.

Methods: A retrospective cross-sectional study was conducted in the bariatric surgery service of a private clinic. Obese patients older than 18 years with a body mass index (BMI) >30Kg/m^2 and 2 comorbidities undergoing a gastric sleeve surgery were included. Measurement of biochemical routine laboratory exams was performed. Insulin resistance was calculated using the homeostasis evaluation model (HOMA-IR). All patients underwent liver biopsies prior to surgery and the diagnosis of MASH was based on the Brunt criteria.

Results: 159 obese patients with MASH were included, of which 47.2% had normal transaminases and 52.8% elevated transaminases. Factors associated with alteration in transaminases were: being male OR=4.02 (95% CI: 2.03-7.96; p<0.01), diagnosis of type 2 diabetes mellitus OR=4.86 (95% CI: 1.97-11.95; p<0.01) and levels of GGT >50 IU/L OR=7.50 (95% CI: 3.40-16.56; p<0.01). The values of HOMA-IR and GGT were significantly higher in the group of high transaminases (p<0.01). Differences in the degree of fibrosis were not associated with transaminases levels.

Conclusions: In conclusion we found that 47.2% of obese patients with MASH had normal transaminases. The degree of fibrosis was not associated with transaminases levels.

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P-32 EVALUATION OF HEPATIC FIBROSIS THROUGH NON-INVASIVE METHODS IN PATIENTS WITH CHRONIC VIRAL HEPATITIS B AND C

Felipe José de Oliveira Fraga[1], Leila Maria Soares Tojal de Barros Lima[2]

[1] *Medical Clinic Residence, Professor Alberto Antunes University Hospital, Federal University of Alagoas, Maceió, Brail*
[2] *Department of Gastroenterology, Professor Alberto Antunes University Hospital, Federal University of Alagoas, Maceió Brasil*

Introduction: Biopsy has been considered the method of choice for staging fibrosis in liver disease. However, as it is an invasive method subject to sampling errors and morbidity, new non-invasive methods have been proposed for the assessment of liver fibrosis.

Aims: To evaluate and compare serum fibrosis biomarkers (APRI and FIB4) with transient liver elastography (THE), gold standard in this study in patients with chronic viral hepatitis B and C.

Methods: Cross-sectional study of patients with chronic hepatitis B or C virus undergoing THE. The patients were evaluated using serum liver fibrosis markers APRI and FIB4. The degree of fibrosis ≥ 2 of the Metavir classification was defined as significant fibrosis. The diagnostic performance of both methods was calculated and compared using the ROC curve (AUROC).

Results: The study included 73 patients, 50 with HBV and 23 with HCV; 50.7% were female, mean age 48.6 ± 13.3 years. Significant fibrosis was observed in 31 patients. The accuracy of serum markers in the diagnosis of liver fibrosis was determined by AUROC, APRI 0.79 and FIB4 0.76 (P = .0.42); PPV and NPV APRI 91.7% and 76.9% respectively; FIB4, PPV = 87.5% and NPV = 77.8%.

Conclusion: The study demonstrated that there was no difference in diagnostic performance between the APRI and FIB4 methods, which were considered tests with good accuracy in the diagnosis of significant fibrosis in patients with chronic viral hepatitis.

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P-33 EVALUATION OF CIRCULATING METABOLOME IN THE SEARCH OF POTENTIAL DRUG-INDUCED LIVER INJURY BIOMARKERS

Daniel E. Di Zeo-Sánchez[1], Inmaculada Medina-Cáliz[2], Judith Sanabria-Cabrera[3], Miren Garcia-Cortes[1,4], Aida Ortega-Alonso[1,4], Alejandro Cueto-Sanchez[2], Rocio San Juan-Jimenez[2,3], Andrés Gonzalez-Jimenez[2], Ismael Álvares-Álvarez[2], Hao Niu[2], Cristina Alonso[5], Guruprasad P Aithal[6], Raul J. Andrade[1,4], M. Isabel Lucena[2,3,4], Mercedes Robles-Diaz[1,4]

[1] *UGC Aparato Digestivo, Instituto de Investigación Biomédica de Málaga-Ibima, Hospital Universitario Virgen de la Victoria, Universidad de Málaga, Málaga, Spain*
[2] *Servicio de Farmacología Clínica, Instituto de Investigación Biomédica de Málaga-Ibima, Hospital Universitario Virgen de la Victoria, Universidad de Málaga, Málaga, Spain*
[3] *Platform for Clinical Research and Clinical Trials Ibima, Scren (Spanish Clinical Research Network)*
[4] *Centro de Investigación en Red en el área Temática de Enfermedades Hepáticas y Digestivas (CIBEREHD), Madrid, Spain*
[5] *Owl Metabolomics, Derio, Bizkaia, Spain*
[6] *National Institute for Health Research (NIHR) Nottingham Biomedical Research Centre, Nottingham University Hospitals NHS Trust and the University of Nottingham, United Kingdom*

Introduction: Idiosyncratic drug-induced liver injury (DILI) is a complex hepatic condition whose diagnosis is challenging due to lack of specific biomarkers.

Objectives: We aimed to evaluate serum metabolomic differences between patients with DILI and with other causes of liver injury in search for specific DILI biomarkers.

Methods: Metabolomic profiles of serum samples from 26 Spanish DILI patients, 34 with non-DILI acute liver injury (ALI) and 48 healthy controls, were analyzed using UHPLC-MS. To assess changes in disease progression, DILI and ALI patients were followed-up from detection (visit 1), one week (visit 2) and >30 days (visit 3). Data were analyzed using Shapiro-Wilk, Student's t and Wilcoxon tests.

Results: Several amino acids, fatty acids (FAs), LPI and bile acids were increased, whereas the glycerophospholipids MEPE and MAPC

were decreased (p<0.05) when DILI was compared to control (visits 1&2). More metabolites were altered when ALI was compared to controls, with higher levels of FAs and lower levels of MEPE and MEPC. Both DILI and ALI showed fewer differences at visit 3 compared to controls, although several FAs remained increased. The differences found were more limited when ALI vs DILI were compared. However, at visit 1 ALI showed a significant higher increase in the bile acids and 31 FAs than DILI patients, but with lower levels of MEPE, tryptophan and alanine. Remarkably, the amino acids Phe-Phe, taurine, glutamic acid and lysine were significantly increased in DILI patients as compared to controls (p<0,05) but did not differ between ALI and controls (p>0,05).

Conclusion: Most metabolomic differences are found at times closer to DILI recognition (visits 1&2), although abnormal values of FAs remain during recovery. Some FAs species and the amino acids taurine, Phe-Phe glutamic acid, lysine, tryptophan and alanine seem promising DILI biomarker candidates that should be further explored. Funding: CIBERehd, ISCiii-FEDER PI18/00901, PI19/00883.

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P-34 OUTCOME OF HEPATITIS C TREATMENT WITH DIRECT-ACTING ANTIVIRALS AFTER UNIVERSAL ACCESS TO THERAPY

S. Blanco-Sampascual, I. Gorostiza-Hormaetxe, F. Menéndez-Blázquez, P. Ruiz-Eguiluz, A. Baranda-Martín, A. Castrillo-Olabarria, M.A. Gómez-Suárez, A. Calderón-García

Gastroenterology Department, Hospital Universitario Basurto, Bilbao, España

Introduction: In our community up to 2016, treatment with direct-acting antivirals was limited to patients with advanced fibrosis, and from January 2017, treatment was allowed to all patients, regardless of their fibrosis stage.

Objectives: To assess changes in the profile of patients treated, and their impact on th outcome.

Methods: We collected clinical information, virological characteristics, type of therapy and Sustained Virological Response from patients treated between 2014-2016 (prioritised treatment) and 2017-June 2020 (universal access).

Results: We treated 1148 patients until June 2020, 361 between 2014-2016 and 787 between 2017-June 2020. In both periods, the majority were male (although we see an increase in women in 2nd period, 35 vs 43%). The percentage of patients with fibrosis 3-4 was clearly higher in the first period (88.8), as expected due to the prioritisation policy, but in the 2nd period it still represents 30.6% of patients. Of these, 63.2 and 20.4% of patients had cirrhosis. We treated few patients with decompensated cirrhosis, most of them in the first period (10 vs. 2). Genotype 1, mainly 1b, was the most prevalent in both periods. Regarding treatment, 28.8% of patients in the first period had received some previous treatment (vs 7.8% in the 2nd period). In the first period ribavirin was routinely used (67.6% vs 11.7%), pan-genotypic treatments were used in only 14.1% of patients (vs. 75.2%) and treatments were longer (8 weeks: 0 vs. 44.7%, 12 weeks: 66.5 vs. 52.2%, 24 weeks: 32.7 vs. 2.7%). SVR rate was slightly superior in the second period (99.1 vs 96.1%).

Conclusions: Despite having prioritised the treatment of patients with advanced fibrosis, these patients still represent one third of those subsequently treated. This should make us persevere in our efforts to identify patients with Hepatitis C. On the other hand, the advent of new, shorter duration pan-genotypic treatments has greatly simplified treatment and improved SVR rates.

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P-35 NONINVASIVE PREDICTORS OF ESOPHAGEAL VARICES IN PATIENTS WITH HEPATOSPLENIC SCHISTOSOMIASIS MANSONI: MULTICENTER STUDY

Mateus Jorge Nardelli[1], Zulane da Silva Tavares Veiga[2], Luciana Costa Faria[1,3], Gustavo Henrique Santos Pereira[2], Catherine Ferreira da Silva[1], Fernanda Aziz Barbosa[1], Flávia Ferreira Fernandes[2], Renata de Mello Perez[4,5,6], Cristiane Alves Villela-Nogueira[4], Claudia Alves Couto[1,3]

[1] *Faculdade de Medicina, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil*
[2] *Setor de Gastroenterologia e Hepatologia, Hospital Federal de Bonsucesso, Rio de Janeiro, Brazil*
[3] *Instituto Alfa de Gastroenterologia, Hospital das Clínicas da Universidade Federal de Minas Gerais, Brazil*
[4] *Faculdade de Medicina, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil*
[5] *Departmento de Gastroenterologia, Universidade Estadual do Rio de Janeiro, Brazil*
[6] *Instituto D'Or de Pesquisa e Ensino, Rio de Janeiro, Brazil*

Background: No previous study have evaluated transient elastography (TE) for predicting esophageal varices (EV) in hepatosplenic schistosomiasis (HSS).

Aim: To investigate noninvasive methods of predicting EV in patients with HSS mansoni.

Methods: Cross-sectional multicentric study included 51 patients with HSS. Patients underwent ultrasonography-dopplerfluxometry, upper endoscopy, complete blood cell count and TE (Fibroscan®) for liver and spleen stiffness measurement (LSM and SSM). Noninvasive scores previously established for cirrhotic population were studied: platelet count to spleen diameter ratio (PSR), LSM-spleen diameter to platelet ratio score (LSPS) and varices risk score (VRS). We proposed a version of LSPS and VRS by replacing LSM with SSM and named them SSPS and modified-VRS, respectively.

Results: EV was detected in 42 (82.4%) subjects. Individuals with EV presented higher SSM (73.5 *vs* 36.3 Kpa, p=0.001), splenic vein diameter (10.8 *vs* 8.0 mm, p=0.017), SSPS (18.7 *vs* 6.7, p=0.003) and modified-VRS (4.0 *vs* 1.4, p=0.013), besides lower PSR (332 *vs* 542, p=0.038), than those without EV. SSPS was independently associated with EV presence (OR=1.19, 95%CI 1.03-1.37, p=0.020) after multivariate analysis. In a model excluding noninvasive scores, SSM was independently associated with EV diagnosis (OR=1.09, 95%CI 1.03-1.16, p=0.004). AUROC was 0.856 (95%CI 0.752-0.961, p=0.001) for SSM and 0.816 (95%CI 0.699-0.932, p=0.003) for SSPS (p=0.551).

Conclusions: Spleen-related variables were predictors of EV: SSM, splenic vein diameter, SSPS, modified-VRS and PSR. Multivariate models indicated that SSM and SSPS are useful tools for predicting EV in non-cirrhotic portal hypertension by HSS and may be used in clinical practice.

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P-36 ACCURACY OF PROGNOSTIC SCORES IN PREDICTION OF MORTALITY IN CIRRHOTIC PATIENTS ADMITTED TO THE INTENSIVE CARE UNIT

Pedro Silva[2], Fernanda Rios[4], Liana Codes[1], Carolina Esteve[2], Murilo Filho[2], Douglas Lima[3], Geraldo Filho[2], Bruno Lima[2], Paulo Chagas[2], Maria Morais[2], Paulo Bittencourt[1]

[1] *Unit of Gastroenterology and Hepatology, Portuguese Hospital, Salvador, Bahia, Brazil*
[2] *Bahiana School of Medicine and Public Health, Salvador, Bahia, Brazil*
[3] *Medicine's Faculty of Bahia, Salvador, Bahia, Brazil*
[4] *Professor Edgard Santos University Hospital, Salvador, Bahia, Brasil*

Introduction: SAPS-3 and SOFA are prognostic scores commonly employed in intensive care unit (ICU). Their accuracy in prediction of mortality has not been adequately evaluated in comparison to prognostic scores commonly employed cirrhotic patients with acute decompensation (AD) or acute-on-chronic liver failure (ACLF).

Aims: To evaluate the performance of prognostic scores, including SAPS-3, SOFA, CLIF-SOFA, Child-Pugh (CPS), MELD, MELD-Na, CLIF-C organ failure, CLIF-C ACLF, CLIF-C AD scores in the prediction of mortality in unselected patients with cirrhosis admitted to the ICU.

Patients and Methods: 213 (150 males, median age 67 [31-91] years) with cirrhosis admitted to the ICU were retrospectively evaluated. All prognostic scores were calculated in the first 24 hours of admission. Their ability to predict mortality was measured using receiver operating characteristic (ROC) curve.

Results: Mortality was observed in 42% of the patients. Analysis of ROC curves revealed that SOFA (0,88) had the best ability to predict mortality, when compared to MELD-Na (0,76), MELD (0,75), CPS (0,71) and SAPS 3 (0,51). In those patients with ACLF, CLIF-ACLF (0,74), CLIF-OF (0,70), MELD-Na (0,73) and MELD (0,69) had a better performance, when compared to SAPS 3 (0,55), SOFA (0,63) and CLIF-SOFA (0,66).

Conclusions: When compared to other general or liver-specific prognostic scores, CLIF-ACLF and SOFA have a better accuracy to predict mortality, respectively, in patients with and without ACLF. SAPS 3 should not be employed as a prognostic score in critically-ill cirrhotic patients.

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P-37 EXPERIENCE IN MEXICO WITH DIRECT ACTING ANTIVIRALS AS A TREATMENT FOR HEPATITIS C

J.L. Pérez Hernández[1], Aldo Torre Delgadillo[2], Graciela Castro Narro[2], Eira Cerda Reyes[3], Mayra Virginia Ramos Gómez[4], Leonardo Juárez Chávezx[5], Margarita Dehesa Violante[6], Linda Muñoz Espinosa[7], Laura Cisneros Garza[8], Ignacio Aiza Haddad[9], José Antonio Velarde Ruiz Velasco[10], Raul Contreras Omaña[11], Nancy García Casarreal[12], Armando Carmona Castañea José[12], María de Fátima Higuera de la Tijera[13]

[1] *Servicio Medico de Petróleos Mexicanos*
[2] *Instituto Nacional de Ciencias Médicas y Nutrición Salvado Zubirán*
[3] *Hospital Central Militar*
[4] *Centro Médico 20 de Noviembre ISSSTE*
[5] *Clínica de Especialidades "Churubusco" ISSSTE*
[6] *Fundación Mexicana para La Salud Hepática Fundhepa*
[7] *Centro de hepatología, departamento de Medicina Interna Hospital Universitario "Dr. José Eleuterio Gonzalez" UANL Monterrey NL*
[8] *Hospital San Jose Tec Salud Monterrey NL*
[9] *Hospital Angeles Lomas*
[10] *Hospital Civil de Guadalajara*
[11] *Centro de Investigación en Enfermedades Hepáticas y Gastroenterología (CIEHG)*
[12] *Hospital López Mateos ISSSTE*
[13] *Hospital General de México "Dr. Eduardo Liceaga"*

Background: It is considered that globally, 71 million people have chronic infection caused by the virus of Hepatitis C (HCV). It is estimated that in 2016 approximately 399,000 people died due to it. Among the infected people 70% develop a chronic infection caused by HCV. In Mexico, it was reported that 6% of them is type C, and the most common genotype is 1. Interferon and ribavirin, hardly ever used in developed countries, are still recommended in Mexico for treating this infection.

Aim: To assess the effectiveness of direct acting antivirals (DAA) in Mexican population with HC.

Methods: In a retrospective, multicenter study in 20 hospitals in Mexico, information of patients with HC and treated with DAA was gathered.

Results: A total of 913 patients were included. The gender distribution was 599 women and 314 men, the mean age was 58.88 ± 12.10 years old. The most frequent genotype was genotype 1. It was found that there is 99% of sustained viral response in genotype 1. Presented side effects were slight.

Conclusion: We found a very high SVR rate, 99%, which is why applying DAA immediately after a patient is diagnosed with Hepatitis C to avoid further complications is recommended.

Core tip: In Mexico, a large sample of patients was documented, where it was concluded that DAA should be used without the fear of adverse events, and to be certain about an SVR to the most frequent genotype in our population. However, the use of pangenomic DAA must be considered.

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P-38 UTILITY OF PUPILLARY REACTIVITY IN THE FUNCTIONAL ASSESSMENT OF THE AUTONOMOUS NERVOUS SYSTEM IN PATIENTS WITH CHRONIC LIVER DISEASE: PRELIMINARY RESULTS

Christian Lara[1], Abraham Gajardo[2], Flavia Giubergia[2], Nicolás Bustos[2], Juan Pablo Roblero[1], Alvaro Urzúa[1], Jaime Poniachik[1], Máximo Cattaneo[1]

[1] *Sección de Gastroenterología, Hospital Clínico Universidad de Chile, Santiago, Chile*
[2] *Laboratorio de Estrés Oxidativo y Nefrotoxicidad, Facultad de Medicina, Universidad de Chile, Santiago, Chile*

Introduction: Autonomic nervous system (ANS) dysfunction in patients with chronic liver disease (CLD) is associated with greater severity. Heart rate variability (HRV) allows the assessment of ANS, but its implementation is complex. Pupillary reactivity (PR) by automatic pupillometry (AP) also provides this information; however its usefulness in patients with CLD is unknown.

Objectives: To validate the usefulness of PR in the evaluation of ANS in healthy subjects and patients with CLD through association with HRV.

Methods: Cross-sectional study that includes healthy controls (n = 11) and patients with DHC (n = 26). ANS balance was determined by HRV by Holter rhythm of 5 minutes and RP by AP. HRV / RP of healthy subjects and with CLD, and correlation parameters of both measurements were compared.

Results: Significant differences were found between both groups in the parameters of both HRV and RP, demonstrating an imbalance of the ANS in CLD patients. Differences were significant in 2 of 3 time parameters, in 2 of 3 frequency parameters in HRV and in 5 of 7

objectified by AP. The imbalance increases directly according to the Child stage (p <0.001).

Conclusions: Patients with CLD have an unbalanced ANS and AP was useful in this study to demonstrate this. The most altered parameters in patients with DHC are directly correlated with the function of the parasympathetic ANS.

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P-39 EXPERIENCE IN THE MANAGEMENT OF REFRACTORY HEPATIC ENCEPHALOPATHY THROUGH ENDOVASCULAR THERAPY

Claudia Muñoz[1], Felipe Ramírez[1], Nicolás Martínez[2], Patricio Palavecino[2], Claudia Pavez[3], Alvaro Urzúa[1], Máximo Cattaneo[1], Juan Pablo Roblero[1], Jaime Poníachik[1]

[1] *Sección de Gastroenterología, Departamento de Medicina Interna, Hospital Clínico Universidad de Chile, Santiago, Chile*
[2] *Servicio de Imagenología, Hospital Clínico de la Universidad de Chile, Santiago, Chile*
[3] *Departamento de Gastroenterología Clínica Dávila, Santiago, Chile*

Introduction: Hepatic encephalopathy (HE) is the most common neuropsychiatric syndrome secondary to portal hypertension. It usually responds to medical treatment, but sometimes HE is refractory (RHE) to usual treatment. In some patients it may be important to consider management alternatives. Endovascular therapy (ET) could be a therapeutic option in selected cases that is performed with very low frequency and the evidence is scarce.

Objectives: To present our experience in the management of RHE with ET.

Methods: The pre and post-procedure clinical characteristics of 10 patients with RHE undergoing splenic vein embolization (n: 5) or porto-systemic bypass embolization (n: 5) between 2009-2019 were retrospectively analyzed.

Results: 7/10 were men, average age 67 years (62-79), in 70% the cause of cirrhosis was NASH, the Child Pugh average score was B (8 points), (6-11) and MELD-Na was 13 points, (9-20), in 5 patients the ammonia prior to the procedure was 134 mmol / l (range: 90-180, VN <30), the average degree of HE was 2-3 on the scale of West Haven. One week after the procedure, in all patients the grade of EH decreased to 0-1 and the ammonium to 88 mmol / l. At one month, the grade of HE was 0 in all patients and that of ammonia was 83 mmol / l. There were no complications from the procedure.

Conclusion: The results obtained confirm that ET in patients with Child B HE and MELD-Na maximum of 20 is a safe and effective procedure, associated with clinical improvement in RHE.

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P-40 SEVERE AUTOIMMUNE HEPATITIS: CORTICOSTEROID THERAPY OR EARLY ENROLLMENT TO LIVER TRANSPLANTATION

Andrea Jiménez[1], Alan Poniachik[1], Eladio González[1], Andrés De la Vega[1], Máximo Cattaneo[1], Juan Pablo Roblero[1], Jaime Poniachik[1], Alvaro Urzúa[1]

[1] *Hospital Clínico Universidad de Chile, Facultad de Medicina Universidad de Chile, Santiago, Chile*

Introduction: Autoimmune hepatitis can present in severe or fulminant acute form (SAH). Only 30-60% of these patients respond favorably to corticosteroids. There is no clarity on its indication and how to evaluate steroid therapy in SAH.

Objectives: To evaluate the early response to corticosteroid treatment in patients with SAH (defined as bilirubin> 10 mg / dL or hepatic encephalopathy).

Method: Retrospective study of 27 patients with SAH, who received corticosteroids, aged 44 years (20-74), 19 (70%) women. Non-responder (NR) was defined if the patient died or required liver transplantation.

Results: 8 patients (30%) were NR, age 49 years (21-72). Bilirubin 22.7 (15-43), INR 2.52 (1.7-3.1), MELD-Na 31 (23-38), UKELD 64 (58-66). Responders (R): 19 (70 %), age 46 years (20 -74). Bilirubin 16 (10-32), INR 1.6 (1-2.8), MELD-Na 23 (17-30), UKELD 59 (54-62). The control at 3 days of R vs NR respectively was bilirubin 10.6 vs 20.3, MELD-Na 19 vs 31, (p <0.001). The Lille in the R at 3, 7 and 14 days had a statistically significant difference with respect to the NR (p <0.005).

Conclusion: The majority of SAH patients (70%) respond to steroid therapy. The favorable response at 3 days could be used as a therapeutic guide. The Lille score was a good predictor on the third day after starting corticosteroids. There was no additional benefit when applying it at 7 and 14 days. MELD-Na is a good predictor of evolution.

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P-41 TRENDS IN HOSPITALIZATION, CHARACTERISTICS AND MORTALITY OF HOSPITALIZED PATIENTS WITH CIRRHOSIS IN CHILE

Juan Pablo Roblero[1], Juan Pablo Arab[2], Christian Von Muhlenbrock[3], Pablo Roblero[4], Jaime Poniachik[1]

[1] *Departamento de Medicina, Sección Gastroenterología, Hospital Clínico Universidad de Chile, Escuela de Medicina Universidad de Chile, Santiago, Chile*
[2] *Departamento de Gastroenterología, Escuela de Medicina, Pontificia Universidad Católica de Chile, Santiago, Chile*
[3] *Becado de Gastroenterología, Departamento de Medicina, Sección Gastroenterología, Hospital Clínico Universidad de Chile, Escuela de Medicina Universidad de Chile, Santiago, Chile*
[4] *Tesista Magíster Sociología, Pontificia Universidad Católica de Chile, Santiago de Chile*

Introduction: Cirrhosis is a frequent cause of hospitalization and is the 3rd cause of death in adults in Chile.

Objective: To describe the trend in hospitalizations and mortality of hospitalized patients with cirrhosis in Chile.

Methods: Descriptive analysis of combination of cross-sections, regression models (STATA 15). Population data from the MINSAL-DEIS 2001-2018 hospital discharge databases (HD) were used. HD were identified by C by codes K70.3, K743, K745, K746 (ICD-10).

Results: Between 2001-2018 there were 28,181 HD by cirrhosis. Mean age 60 years; 63% men. 19,174 (68%) were for cirrhosis not associated with alcohol (CNAA) and 9,008 (32%) for alcohol (CAA). 4,903 (17.4%) of the HD were as deceased; these decreased from 521 (20.7%) in 2001 to 178 (12.5%) in 2018. Mortality was higher in CAA (21.4% vs 15.5%). 3 periods with different trends in the rate of HD per C (x100,000) are identified: 2001-2007 decreased by 53%, from 16.2 (2,518 HD) to 8.5 (1,411); 2007-2013 decreased 28% reaching 6.1 (1,067 HD); 2013-2018 increased 24.6%, reaching 7.6% (1,424 HD).

The decrease in the second period and the increase in the third period were 3 times greater in CNAA than in CAA. By sex and type of cirrhosis, the third-period increase in CAA / women began in 2017.

Conclusion: There is an increase in HD due to cirrhosis from 2013, relevant and worrying information. Its cause should be investigated in future studies. The decrease in deceased HD may be due to better knowledge and management of the disease.

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P-42 SEROPREVALENCE OF IgG and IgM ANTI-HEV ANTIBODIES USING AN AUTOMATED METHOD: EXPERIENCE OF A UNIVERSITY CENTER

Natalia Covarrubias[1], Constanza Bohle[2], Christian Lara[1], Julio Miranda[1], Carmen Hurtado[1], Mauricio Venegas[1]

[1] *Sección de Gastroenterología, Departamento de Medicina, Hospital Clínico Universidad de Chile, Santiago, Chile*
[2] *Programa de Formación de Especialista en Laboratorio Clínico, Universidad de Chile, Santiago, Chile*

Introduction: Hepatitis E virus (HEV) seroprevalence studies have great variability depending the test used. In 2015, with a manual ELISA method, we reported an anti-HEV IgG seroprevalence of 32.6% in patients evaluated for hepatitis. Recently, the first automated method was developed that correlates with the world reference ELISA, standardizing and optimizing the process. In Chile there are no reports with this method.

Objective: To evaluate the seroprevalence of anti-HEV IgG and IgM antibodies, using a new automated method.

Methods: 179 anti-HEV IgG and/or IgM antibody results were collected from patients studied between May 2018 and August 2019 (53% female, mean age 45 years, range: 1-82 years). Measurements were made with automated ELFA, VIDAS® ANTI-HEV IgM and IgG technique, test duration: 40 minutes. Statistical analysis with chi^2 test.

Results: We found 27.2% (47/173) of positivity for anti-HEV IgG, and 4.2% (7/168) for anti-HEV IgM. Only 3 samples had both positive antibodies. The seroprevalence of anti-HEV IgG increased significantly with age, 9.7% in <40 years and 39.6% in ≥ 40 years ($p < 0.001$), without differences by gender.

Conclusion: The seroprevalence of anti-HEV IgG obtained was similar to that previously reported with the manual ELISA kit. The VIDAS® ANTI-HEV IgM and IgG Assay is a new automated, useful and rapid tool for the serological study of HEV. The existence of acute infection by HEV suggests its incorporation in the differential diagnosis of acute hepatitis.

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P-43 INDICATORS OF RESPONSE TO FIRST TRANSARTERIAL CHEMOEMBOLIZATION (TACE) IN HEPATOCELULLAR CARCINOMA

Alejandra Domínguez[1], Gabriel Puelma[2], Marcelo Salinas[1], Máximo Cattaneo[1], Javier Ortiz[2], Patricio Palavecino[2], Alvaro Urzúa[1], Juan Pablo Roblero[1], Jaime Poniachik[1]

[1] *Sección Gastroenterología, Departamento de Medicina Interna, Hospital Clínico Universidad de Chile, Santiago, Chile*
[2] *Departamento de Imageneología, Hospital Clínico Universidad de Chile, Santiago, Chile*

Introduction: Hepatocellular carcinoma (HCC) is the third leading cause of cancer death worldwide. Liver transplantation offers good results in its treatment, however the shortage of donors has forced the use of other therapies, such as transarterial chemoembolization (TACE), whose therapeutic scheme is not completely standardized.

Objective: To evaluate the response to the first TACE, the indicators of success of the therapy and the decompensations associated with its use.

Methods: Retrospective observational study. 76 patients were included. Variables such as sociodemographic, clinical and HCC stages were included. Response to TACE was assessed by post-treatment LIRADS classification. Descriptive statistics were used for the analysis.

Results: 60% men, the median age was 64 years (51-81), 63% Child A, average MELD-Na 10 points. 33% associated with NASH. 47% of the patients reached non-viability after the first TACE, 30% required two TACE, 15% three TACE and 7% four TACE. 58% in Barcelona stage A, 43% within the Milan criteria and 60% within the San Francisco criteria. 6% presented decompensations after the 1st TACE. The characteristics of the patients who reached non-viability versus those who remained viable are presented in Table 1.

Conclusion: Most patients require two TACEs to achieve tumor non-viability. The main indicators of response to TACE were tumor burden and MELD-Na score> 8.

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P-44 TRANSARTERIAL CHEMOEMBOLIZATION IN PATIENTS WITH CONTROVERSIAL INDICATION

Alejandra Domínguez[1], Gabriel Puelma[2], Marcelo Salinas[1], Máximo Cattaneo[1], Alvaro Urzúa[1], Juan Pablo Roblero[1], Jaime Poniachik[1]

[1] *Sección Gastroenterología, Departamento de Medicina Interna, Santiago, Chile*
[2] *Hospital Clínico de la Universidad de Chile, Santiago, Chile*

Introduction: Transarterial chemoembolization (TACE) is considered the therapy of choice in patients with intermediate stage hepatocellular carcinoma (HCC) who are not candidates for surgical resection or tumor ablation. There are discrepancies in the American and European consensus on the treatment of HCC in Child B stage patients, given it is associated with an increased risk of liver failure and death.

Objective: To describe the experience of a University Center in the management of patients with HCC and cirrhosis Child B.

Methods: Observational, retrospective study. 25 patients were included. Sociodemographic variables, aetiology of cirrhosis, HCC stage, treatment and associated decompensations were included. The analysis was carried out with descriptive statistics.

Results: Of the patients, 14 women, 24% with MELD-Na ≥ 15 (15-20). 44% NASH, 20% HCV infection. 56% and 34% in stage A and B of Barcelona. 32% within the Milan criteria and 25% within San Francisco. After the TACE, 16% presented immediate complications, without associated mortality. At 6 months of follow-up, 36% presented an increase in MELD-Na by (2-6) points, 32% presented or increased ascites, 12% progressed to Child C. Survival at 6 months after chemoembolization was 76%.

Conclusion: TACE was a safe procedure in patients with Child B, in terms of immediate complications, however, a considerable percentage presented deterioration of liver function at 6 months of follow up. This therapy in Child B patients should be evaluated individually case by case.

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P-45 LIVER HEMODYNAMIC AND TRANSJUGULAR LIVER BIOPSY: ROLE IN DIAGNOSTIC AND THERAPEUTIC BEHAVIOR

Alvaro Urzúa[1], Jaime Poniachik[1]

[1] *Sección de Gastroenterología, Departamento de Medicina Interna, Hospital Clínico Universidad de Chile, Santiago, Chile*

Introduction: The hepatic hemodynamic study (HH) and the transjugular liver biopsy (TJLB) are complementary tests used in hepatology that provide valuable information, allowing to obtain diagnoses that change behavior. In our environment there is little experience regarding the performance and results obtained, particularly when it is performed by a hepatologist.

Objective: To describe the experience and results of the HH and TJLB study in our center.

Methods: All HH and TJLB studies conducted by one of the authors (AU) from January 2018 to July 2019 were included. Clinical records, HH and TJLB outcome, and behavior change were reviewed.

Results: 25 patients and 27 procedures were included; age 55 (20-72) years, 60% women. Procedures: 21 TJLB + HH and 6 HH. Reason for request: etiological study cirrhosis 29.6%, etiology acute hepatitis 18.5%, diagnostic doubt in alcohol hepatitis 11.1%, suspected idiopathic portal hypertension 11.1%, rejection 7.4%, hepatocelullar carcinoma 3,7% and another 18.5%. In 92.6% of the cases, the HH and / or TJLB result made it possible to confirm / rule out diagnosis and change therapeutic behavior. 90.5% of the TJLB results were satisfactory for diagnosis. Only one patient presented a complication: hemobilia that did not require invasive management, and one patient had an incomplete procedure.

Conclusion: Our experience shows that the HH study and the TJLB are important complementary tests to change behavior. For this reason, they should be considered, when indicated, in the study of the hepatological patient.

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P-46 EPIDEMIOLOGICAL PROFILE AND CLINICAL OUTCOMES OF PATIENTS INTOXICATED WITH ACETAMINOPHEN FOR SUICIDAL PURPOSES AT *HOSPITAL SAN VICENTE FUNDACIÓN RIONEGRO*: A CASE SERIES

Daniel Vasquez[1], Luis Guillermo Toro[2], Marle Duque[3], Lina María Ramiréz[3], Luisa Fernanda Ahunca[3], Diana Restrepo[4]

[1] *Grupo de Investigación en Epidemiología y Bioestadística, Universidad CES, Medellín, Colombia*
[2] *Unidad Funcional de Enfermedades Digestivas y Trasplantes, Hospital San Vicente Fundación, Rionegro, Colombia*
[3] *Unidad Funcional de Enfermedades Crónicas del Adulto, Oncología y Neurociencias, Hospital San Vicente Fundación, Rionegro, Colombia*
[4] *Departamento de Psiquiatría, Universidad CES, Medellín, Colombia*

Introduction: Acetaminophen is the most widely used analgesic in the world and its overdose is a major cause of hepatic failure in developed countries.

Objective: This study aims to describe patients with overdose intake of acetaminophen between 2019 and 2020 at a reference center for liver transplantation in Rionegro-Colombia.

Methods: Case-series study derived from a secondary analysis of the clinical records between January 1st of 2019 to December 31st of 2020. Inclusion criteria were individuals with voluntary acute ingestion of toxic doses of acetaminophen (>4 g/day).

Results: 63 cases, 68% women, 67% <18-year-old, and 54% students. 60% had a personal history of psychiatric illness and 35% reported at least one previous suicide attempt. The median dose of acetaminophen was 15g (IQR:11.5g; Max:50g), 46% referred to co-ingestion with other substances and 13% were under the effect of any psychoactive substance. 57% had a clear intention of suicide. 81% vomited before the arrival to the emergency room, 22% received decontamination intervention with gastric lavage or activated charcoal, and 10% did not receive any dose of N-Acetylcysteine. 15 individuals developed an acute liver injury, 9 with severity criteria, and 1 developed acute kidney injury.

Conclusions: The population was predominantly young, the personal history of psychiatric disease was highly prevalent, and most of the cases referred to a vital event that explains the impulsive behavior in acetaminophen consumption. No one developed criteria for liver transplantation and this could be explained by the young age of the individuals, the episodes of early vomiting, and the absence of chronic liver disease or hepatotoxic substance consumption.

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P-47 HISTOPATHOLOGICAL ANALYSIS OF 10-YEAR PROTOCOL LIVER ALLOGRAFT BIOPSY OF ASYMPTOMATIC PEDIATRIC RECIPIENTS FROM A SINGLE BRAZILIAN CENTER

Luciana E. Soares[1], Carlos Thadeu Carski[2], Carlos O. Kieling[3], Marina Adami[3], Renata Rostirola Guedes[3], Ariane Backes[3], Ian Leipnitz[3], Sandra M.G. Vieira[3]

[1] *Programa de Pós Graduaçao em Saúde da Criança e do Adolescente, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil*
[2] *Pathology Department, Hospital de Clínicas de Porto Alegre, Porto Alegre, Brazil*
[3] *Pediatric Department, Gastroenterology and Hepatology Unit, Hospital de Clinicas de Porto Alegre, Porto Alegre, Brazil*

Introduction: Liver transplant (LT) is the main therapeutic procedure for irreversible liver failure. Protocol liver biopsies during post-transplant follow-up in pediatric recipients with stable graft function have been done in order to identify structural changes. A more specific score, LAFSc, to analyze fibrosis and inflammation on liver allografts has been validated recently.

Objectives: To describe the prevalence of histological liver abnormalities in asymptomatic pediatric patients after ten years following LT from a Brazilian single center comparing two different scoring methods.

Methods: Cross-sectional study of analysis of protocol percutaneous liver biopsies performed in patients who underwent liver transplant before the age of 18 years, of both genders, asymptomatic, using Tacrolimus for immunosuppression and at least 10-years post-liver transplant. From 97 recipients, 21 met inclusion criteria and had stable liver graft function. A single experienced pathologist assessed histopathological features comparing METAVIR scoring system and LAFSc.

Results: Mean follow-up was 12.8 (+/- 2.1) years after post-LT. TAC mean daily dose during biopsy time was 4mg (+/- 1.7) with mean serum level of 4.04. METAVIR scoring system pointed 10 recipients with any degree of fibrosis and 13 with inflammation findings in protocol biopsies. However, using LAFSc scoring system, 13 patients scored for abnormal findings in any of the three zones analysed, although 8 of

these had total score of mild fibrosis (1-3). Of the three zones analysed in LAFSc, the highest scores were found in portal space. Centrilobular vein zone was the most affected, documented in 11 recipients.

Conclusion: We observed a higher prevalence of abnormal findings using the new allograft fibrosis scoring system – LAFSc. It also showed more specifically the degree and location of fibrosis within hepatic lobule compared to METAVIR. Compared to other LT reports, we observed lower rates of chronic allograft hepatitis and fibrosis at 10 years.

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P-48 HEPATITIS DELTA: THE MOST SEVERE OF ALL VIRAL HEPATITIS

Júlia Teixeira Ton[1], Ester Teixeira Ton[1], Alcione de Oliveira dos Santos[2], Juan Miguel Villalobos Salcedo[1,2], Deusilene Vieira Dallácqua[1,2,3], Mariana Pinheiro Alves Vasconcelos[2,4]

[1] *Centro Universitário Aparício Carvalho – UNIFIMCA, Porto Velho, Rondônia*
[2] *Centro de Pesquisa em Medicina Tropical de Rondônia – CEPEM, Porto Velho, Rondônia*
[3] *Fundação Oswaldo Cruz de Rondônia – Fiocruz/Ro, Porto Velho, Rondônia*
[4] *Centro de Medicina Tropical de Rondônia – Cemetron, Porto Velho, Rondônia*

Introduction: 500,000 to 1.2 million deaths are speculated annually from complications of hepatitis B. The hepatitis Delta virus (HDV) also represents an important public health problem in endemic areas.

Objective: To analyze the clinical and laboratory characteristics at the first consultation of HBV and HBV/HDV patients.

Methods: Retrospective study (2017 and 2018) of 324 records of HBV and HBV/HDV patients at Research Center for Tropical Medicine of Rondônia. Project approved by the Research Ethics Committee. For statistical analysis, SPSS® version 25.0.

Results: A total of 324 patients were included, 302 (93.2%) were HBV and 22 were (6.7%) HBV/HDV. At the first consultation, 16.2% of the HBV showed signs of chronic liver disease, while in the HBV/HDV patients, 59.1% (p <0.0001). Signs of portal hypertension were present in 7.9% of HBV (splenomegaly in 5.6%) and in 54.5% of HBV/HDV patients (splenomegaly in 45.5%, p <0.0001). Ascites was seen in almost one third of those co-infected (27.3%). In laboratory analyzes, 6.4% of HBV patients had a total of bilirubin greater than 1.2 mg/dL, among those co-infected (45.5%, p <0.0001). Albumin was less than 3.5g/dL in 8.4% of the HBV and in 42.8% (p <0.0001) of the HBV/HDV patients. Alfafetoprotein was greater than 10UI/mL in 9.7% of the monoinfected and in 18.2% (p: 0.268) of the HBV/HDV patients.

Conclusion: Coinfected patients presented a more serious condition in the first consultation, with signs of portal hypertension and decompensated liver disease, reinforcing HDV as the most severe and rapidly progressive of all viral hepatitis.

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P-49 COVID 19-PANDEMIC AND OUTCOMES IN DECOMPENSATE CIRRHOSIS-10 MONTHS REVIEW

Priscila Pollo-Flores, Gabriel Alverca Meyas, Vanessa Rodrigues, Janaisa Moraes de Souza, Pamela Moura Rodrigues Cardoso, Iasmin Torres Leitão, Stephanie Cathren Fenizola dos Santos da Silva, Lívia Melo Villar

Fluminense's Federal University, Oswaldo Cruz`s Institute, Niterói, Rio de Janeiro, Brazil

Background and Aims: Liver abnormalities are frequent in COVID-19 disease, AST and ALT abnormalities are present in about 60% of serious disease patients. However, liver insufficiency and liver mortality were not important concerns. Decompensate cirrhotic patients are a group of high risk for morbidity and mortality. Consequently, we aimed to study cirrhotic patients with at least one complication: ascites, encephalopathy or esophageal varices; to investigate mortality, transplantation and hospitalization due to SARS-Covid-19 infection pandemic.

Methods: Liver unit patients were enrolled after ethical approval and signed consentiment term. Combined outcomes during pandemic were analyzed. Participants were submitted to SARS-Cov 2 test by PCR oro/pharingeal swab. Call phone and medical records were consulted for covid 19 symptoms and outcomes. Survival, transplantation and clinical complications were studied.

Results: Fourthy seven patients were enrolled, 26 followed. Men was 73% of patients and median age was 62,7 years. The cirrhosis etiology in 35% was MAFLD, 32% alcohol, 15% HCV and 18% others. Frequence of COVID-19 infection was 42%, at last 10 months, and three (11%) patients died. Liver-related complications with death were present in 19% of patients without COVID-19 infection. Five patients (19%) were submitted to liver transplantation, without COVID-19 disease.

Conclusion: Although an incipient analyzes, our data show high death rate of cirrhotic decompensate patients during COVID-19 pandemic. This population needs a specific approach in order to prevent Covid-19 infection, liver-related mortality and complications during pandemic.

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P-50 PREVALENCE OF HEPATITIS AMONG STUDENTS AND HEALTH PROFESSIONALS AT THE FEDERAL UNIVERSITY OF BAHIA

Jacy Andrade[1,4], Lucas Sousa Macêdo[1,5,7], Fernanda Bastos[1], Marco Antônio Vasconcelos Rêgo[1], Robert Eduard Schaer[2,5], Roberto Meyer[2,5,7], Juçara Magalhães Simões[2,5], Songeli Menezes Freire[2,5,6,7], Raymundo Paraná[1,3,7], Maria Isabel Schinoni[1,2,3]

[1] *Faculdade de Medicina da Bahia, Salvador, Brazil*
[2] *Instituto de Ciências da Saúde – Universidade Federal da Bahia Salvador, Brazil*
[3] *Hospital Universitário Professor Edgar Santos - Universidade Federal da Bahia, Salvador, Brazil*
[4] *Centro de Referência para Imunobiológicos Especiais, Salvador, Brazil*
[5] *Laboratório de Imunologia e Biologia Molecular – ICS – UFBA, Salvador, Brazil*
[6] *Escola Bahiana de Medicina e Saúde Pública, Salvador, Brazil*
[7] *Pesquisador do CNPq, Salvador, Brazil*

Introduction: Hepatitis A virus (HAV) is a hepatotrophic virus of fecal-oral transmission. Occupational exposure in the health area is not considered a risk of HAV contagion. Adults are more likely to develop fulminant hepatitis. In Brazil, those over 20 years of age have a high prevalence of anti-HAV antibodies (IgGHAV).

Objective: To study the prevalence of IgGHAV in college students (group 1) and professionals (group 2) of the health area of the Federal University of Bahia.

Methods: The sample consisted of 335 individuals who completed an epidemiological questionnaire and in whom IgGHAV was studied in sera.

Results: IgGHAV was present in 56.9% of all individuals, being 43.9% susceptible. IgGHAV was in 94.4% of group 2 and in 48.8% of group 1 ($p = 0.000$). There were no statistical differences between ethnicities. There was an association between professional category and report of exposure to biological material ($p = 0.017$), but not between seropositivity and report of this exposure. These data reflect both occupational and environmental exposure. Greater seropositivity in older professionals can also mean greater environmental exposure throughout life. In this study, curiously, greater exposure to biological material did not have a significant association with seropositivity for HAV, recalling the importance of exposure also in the extra-academic community.

Conclusion: This study showed that 43.9% of the individuals who start studies in the health area of our university are susceptible to contracting HAV infection, which generates an epidemiological reconsideration of the need for vaccination in this population in the vaccine calendar from Brazil concerning the last VHA outbreaks in special population as MSM.

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P-51 HEPATOCELLULAR CARCINOMA: ONLY EARLY DIAGNOSIS IS NOT ENOUGH

Fernanda Soares Gomes Canedo[1], Monica Klimczuk Fernandes[2], Maria Lucia Pedroso[3]

[1] *Section of Hepatology, Department of Gastroenterology, Complex Hospital of Clinics Federal University of Paraná, Curitibia, Brazil*
[2] *Department of Epidemiology, Complex Hospital of Clinics Federal University of Paraná, Curitiba, Brazil*
[3] *Section of Hepatology, Department of Gastroenterology, Complex Hospital of Clinics Federal University of Paraná, Curitiba, Brazil*

Introduction: Hepatocellular carcinoma (HCC) has an estimated prevalence of 3-5% of cases per year and is associated with high mortality. Early diagnosis can provide chance of treatment and cure.

Objective: Evaluate the clinical evolution and treatment of a cohort of patients diagnosed with HCC.

Methods: Retrospective study with patients from the Hepatology outpatient clinics at a university hospital with HCC, from January 2014 to December 2019. Demographic, clinical and laboratory variables were evaluated, as well as treatment indication and evolution.

Results: 77 patients with HCC and cirrhosis were included, 70% were male, aged 18 to 78 years, with a mean age of 62 years, 30% were diabetic and 25% had obesity. The main etiology of cirrhosis was hepatitis C. The average time between diagnosis of cirrhosis and evidence of HCC was 6.2 years. The size of the tumor ranged from 1.2 cm to infiltrative lesion (20%), with average of 2.9 cm. Single nodule at diagnosis was found in 60% of cases, mostly within the Milan criteria. The proposed treatment at diagnosis was liver transplant alone in 42% of cases, transarterial chemoembolization (TACE) and TACE associated with transplant in 6% and 10%, respectively, resection in 4%, Sorafenib in 15% of individuals and support treatment in 23%. However, liver transplant was performed in only half of the patients with indication, as 14% had severe comorbidities, 36% evolved with progression of the HCC and 50% refused treatment or had low adherence to follow-up.

Conclusion: In addition to the early diagnosis of HCC, the intrinsic potential of brief tumor dissemination, the absence of serious comorbidities and the rapid intervention and therapeutic availability are essential to improve the prognosis of these patients. It is also necessary to reinforce adherence to treatment and medical follow-up.

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P-52 PROSPECTIVE COHORT OF PATIENTS WITH LIVER INJURY INDUCED BY DRUGS, HERBS OR DIETARY SUPPLEMENTS

Vinícius Santos Nunes[1], Catarina Secundino[2], Luísa Latado[2], Genário Santos[1], Raimundo Paraná[1], Maria Isabel Schinoni[1]

[1] *Gastroenterology Department, Hospital Universitário Professor Edgard Santos, Salvador, Brazil*
[2] *Medical Student, Universidade Federal da Bahia, Salvador, Brazil*

Introduction: Drug induced liver injury (DILI) is one of the most prominent causes of hepatic dysfunction. Nevertheless, many cases tend to be underreported given its difficult diagnosis, which distorts the epidemiological reality of the condition.

Objectives: To characterize the clinical and epidemiological features of DILI patients in a reference center from Brazil.

Methods: Consecutive in and outpatient were enrolled with hepatotoxicity from Hospital Universitário Professor Edgard Santos between 2016-2020. The patients were selected as follows: adults with compatible chronology of drug exposure, excluding other etiologies and considering hepatotoxic potential of the drug. Histopathology was performed in inconclusive cases. All cases were followed until discharge and validated by an international reference center: Malaga University - Spain.

Results: Out of 47 patients included, 33 were females (70%). The average age was 44,8 years (17-72). The main symptoms were fatigue, nausea and jaundice. The biochemical pattern was mostly hepatocellular (74%) - 17% has presented a cholestatic pattern and 9% were mixed. *Table 1* provides an overview of the implicated substances and shows a high incidence of herbal and dietary supplements (21%) and anabolic steroids (8%). Antibiotics were responsible for hepatotoxicity in the majority of cases (13 patients - 27%), from which 4 were due to antitubercular medications (rifampicin and isoniazid).

As a single agent, nimesulide, stanozolol and isoniazid were responsible for 8% each. 36% of the cases were considered mild, 53% were moderate and 11% were severe, from which one patient needed transplantation and one died. 57% of all patients needed hospitalization. Chronic cases represented 8% of the total.

Conclusion: DILI is a underreported diseases and it is necessary local and multicentric consortiums cohorts to improve our knowledge about it. Special attention should be paid to the high relative frequency of DILI through the use of nimesulide, antituberculostatics, stanazolol, herbs and dietary supplements.

Drug		N of Cases
Antibiotics		13
	Antituberculars	4
	Amoxicillin-Clavulanate	3
	Nitrofurantoin	1
	Piperacillin/Tazobactam	1
	Trimethoprim/Sulfamethoxazole	1
	Fluconazole	1
	Oxacillin	1
	Meropenem	1
Herbs and Dietary Supplements		10
	Camellia sinensis	3
	Peumus boldus	2
	Moringa oleifera	1
	Plantago major L.	1
	Ruellia bahiensis	1
	Senna alexandrina	1
	Rip Kutz	1
Anabolic Steroids		4
	Stanozolol	4
NSAIDs		5
	Nimesulide	4
	Diclofenac	1
Neuroleptics		5
	Phenytoin	2
	Chlorpromazine	2
	Phenobarbital	1
Antiretrovirals		3
	Dolutegravir	2
	Efavirenz	1
Others		7
	Acetaminophen	1
	Propylthiouracil	1
	Asparaginase	1
	Fluconazole	1
	Infliximab	1
	Oxaliplatin	1
	Etrolizumab	1

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P-53 FAILURE IN ALL STEPS OF HEPATOCELLULAR CARCINOMA SURVEILLANCE PROCESS IS FREQUENT IN DAILY PRACTICE.

Melisa Dirchwolf[1], Sebastián Marciano[2], Andres E. Ruf[1], Amit G. Singal[3], Vanina D'Ercole[4], Paola Coisson[5], Alina Zerega[6,7], Federico Orozco[8], Ana Palazzo[9], Eduardo Fassio[10], Diego Arufe[11], Margarita Anders[12], Claudia D'Amico[13], Luis Gaite[14,15], Marcos Thompson[16], Daniela Perez[9], Leila Haddad[2], Ezequiel Demirdjian[11], Moira Zunino[9], Adrián Gadano[2], María Dolores Murga[9], Carla Bermudez[2], Jesica Tomatis[1], Nadia Grigera[12], Florencia Antinucci[12], Manuel Baravalle[1], Maria Mercedes Rodriguez Gazari[17], Melina Ferreiro[18], Manuel Barbero[5], Andrea Curia[18], Manuel Demonte[14], Gisela Gualano[10]

[1] *Hospital Privado de Rosario, Rosario, Santa Fe, Argentina*
[2] *Hospital Italiano de Buenos Aires, Caba, Argentina*
[3] *Department Internal Medicine, UT Southwestern Medical Center, Dallas, Texas, USA*
[4] *Hospital Complejo Médico de la Policía Federal Churruca – Visca, Caba, Argentina*
[5] *Hospital el Cruce – Néstor Kirchner, Florencio Varela, Buenos Aires, Argentina*
[6] *Sanatorio Allende, Córdoba, Argentina*
[7] *Hospital Córdoba, Córdoba, Córdoba, Argentina*
[8] *Hospital César Milstein, Caba, Argentina*
[9] *Hospital Ángel C. Padilla, San Miguel de Tucumán, Tucumán, Argentina*
[10] *Hospital Nacional Prof. Alejandro Posadas, El Palomar, Buenos Aires, Argentina*
[11] *Sanatorio Sagrado Corazón, Caba, Argentina*
[12] *Hospital Alemán, Caba, Argentina.*
[13] *Centro Especialidades Médicas Ambulatoria, Mar del Plata, Buenos Aires, Argentina*
[14] *Hospital José M. Cullen, Santa Fe, Argentina*
[15] *Clínica de Nefrología, Urología y Enfermedades Cardiovasculares, Santa Fe, Argentina*
[16] *Hospital Universitario Austral, Pilar, Buenos Aires, Argentina*
[17] *Hospital Británico, Caba, Argentina*
[18] *Hospital de Clínicas José de San Martín (UBA), Caba, Argentina*

Introduction: Failures at any step in the hepatocellular carcinoma (HCC) surveillance process can result in HCC diagnostic delays and associated worse prognosis.

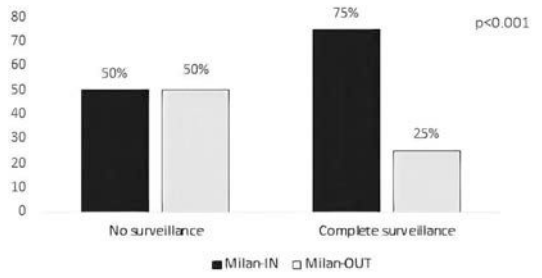
Objectives: We aimed to estimate the prevalence of surveillance failure and its associated risk factors in patients with HCC in Argentina, considering three steps: 1) recognition of at-risk patients, 2) implementation of HCC surveillance, 3) success of HCC surveillance.

Methods: We performed a multi-center cross-sectional study of patients at-risk for HCC in Argentina seen between10.01.2018 and 10.30.2019. Multivariable logistic regression analysis was used to identify correlates of surveillance failure.

Results: Of 301 included patients, the majority were male (74.8%) with a mean age of 64 years old. At the time of HCC diagnosis, 75 (24.9%) patients were unaware of their diagnosis of chronic liver disease, and only 130 (43.2%) patients were under HCC surveillance. Receipt of HCC surveillance was significantly associated with follow-up by a hepatologist. Of 119 patients with complete surveillance, surveillance failure occurred in 30 (25.2%) patients. Patients under complete surveillance were significantly more likely to be diagnosed within Milan criteria than those without surveillance (75% vs. 50%, p<0.001),(Figure). Surveillance failure was significantly associated with alpha fetoprotein ≥20 ng/ml (OR 4.0, CI 95% 1.43-11.55).

Conclusions: HCC surveillance failure was frequent in all the evaluated steps. These data should help guide strategies to improve the implementation and results of HCC surveillance in our country.

Figure. Milan criteria at diagnosis according to HCC surveillance.



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P-54 STUDY OF BACTERIAL INFECTIONS IN 134 HOSPITALIZATIONS OF PATIENTS WITH LIVER CIRRHOSIS

Rodrigo Fedatto Beraldo[1], Maria Clara Vidal Regueiro[2], Thaís Gagno Grillo[1], Maria Natália Marques dos Santos[1,2], Mariana Barros Marcondes[1], Luciana Almeida Rocha[1], Giovanni Faria Silva[1]

[1] *State University São Paulo, Botucatu, Brasil*
[2] *Taubaté University, Taubaté, Brasil, Paraná Federal University, Curitiba, Brasil*

Background: In cirrhotic, bacterial infections are frequent and demands 25-40% of hospitalizations, can trigger decompensations, organ failure, even death. Spontaneous bacterial peritonitis (SBP), urinary tract infection (UTI), pulmonary and skin are recurrent foci. Thus, preventive measures, early diagnosis and proper management are crucial to reduce morbidity and mortality.

Objectives: Analyze the epidemiology of admitted cirrhoticsat tertiary hospital, their infection, prognosis and mortality.

Methods: Retrospective observational study by analyzing 134 hospitalizations (103 patients) from 06/01/2018 to 05/31/2019. Inclusion: diagnosed cirrhotics (clinic/image). Exclusion: elective hospitalization.

Results: 71 men and 32 women. Mediumage 58.4 ± 12.3. Etiologies: alcoholic 46 patients; NAFLD 22; hepatitis C 12. Of all, 45 admissions (33.58%) had community infections - prevalent UTI followed by SBP. Among this 45 hospitalizations, 12 (26.66%) reinfected during the stay. Overall death rate was 31%. Deaths: 2 without infection (71 hospitalizations); 30 infected (63 hospitalizations). In-hospital infections: 18 hospitalizations (13.4%), UTI principally, of which 11 patients died, 8 (72.72%) due to infection. Admission's Child-Pugh (CP) and Meld scores, by site: pulmonary (CP 11 ± 2.05; Meld 27 ± 10.02); 2 focus (CP 10.1 ± 1.86; Meld 23.8 ± 2.92); indeterminate (CP 10.1 ± 2.63; Meld 23.3 ± 8.31); urinary (CP 10.2 ± 2.64; Meld 21.5 ± 10.50); PBE (CP 9.8 ± 1.39; Meld 20.8 ± 4.21); intestinal (CP 9.8 ± 2.31; Meld 21.8 ± 7.68); cutaneous (CP 9.4 ± 0.89; Meld 18.2 ± 2.38); bloodstream (C 7.5 ± 0.70; Meld 16 ± 9.89). Death rate by site: indeterminate 83.3%; 2 sites 71.4%; pulmonary 60%; bloodstream 50%; UTI 35.3%; Intestinal 33.3%; SBP 30%; cutaneous 20%.

Conclusion: The most admitted cirrhotics are men and alcoholic etiology. Undetermined focus infections, 2 sites and lungs had higher mortality and CP/Meld scores on admission. Therefore, broad-spectrum empirical antibiotic therapy and semi-intensive care to this population are recommended.

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P-55 QUALITY OF LIFE IMPROVES IN PATIENTS WITH OR WITHOUT CIRRHOSIS AFTER HEPATITIS C CURE WITH DIRECT-ACTING ANTIVIRAL AGENTS

Lucrecia Garcia Olveira[1], Sebastián Marciano[1,2], Leila Haddad[1], Monica Fabiola Vasquez Palacios[3], Diego Giunta[2], Adrian Gadano[1,2]

[1] *Hospital Italiano de Buenos Aires, Liver Unit, Ciudad de Buenos Aires, Argentina*
[2] *Hospital Italiano de Buenos Aires, Department of Research, Ciudad de Buenos Aires, Argentina*
[3] *Hospital Universitario del Rio, Cuenca, Ecuador*

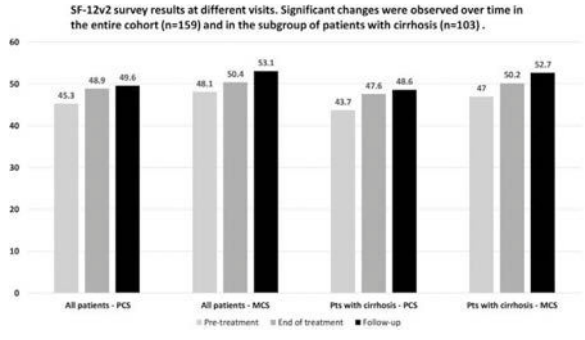
Background: The effect of the treatment of chronic hepatitis C (CHC) with direct-acting antiviral agents (DAAs) on health- related quality of life (HRQL) has been mostly evaluated in clinical trials, and infrequently in Latin-American patients.

Aims: To evaluate the effect of CHC treatment with DAAs on HRQL in patients who achieved sustained virological response (SVR) in a real-life setting.

Materials and Methods: Prospective cohort study of consecutive adult patients with chronic hepatitis C who achieved SVR with DAAs from August/2017 to December/2018 at Hospital Italiano de Buenos Aires (Argentina). To evaluate HRQL, SF-12v2® Health Survey (SF-12v2) was administered before treatment, at its end, and 12-16 weeks after treatment ended (follow-up visit). QualityMetric-2009 General Population Sample was used as a reference to compare summary scores. The survey has two main summary domains: the physical component summary score (PCS) and the mental component summary score (MCS). Changes over time > 3 points are considered significant.

Results: A total of 159 patients were included, median age 59 (50-69) years-old, 103 (65%) had cirrhosis [85 (83%) Child A; 18 (17%) Child B]. Most patients (80%) received daclatasvir plus sofosbuvir, with or without ribavirin. Median treatment duration was 12 (12-24) weeks. At baseline, both PCS and MCS were below the mean reference of the standard population and showed a significant and progressive improvement over time. The overall mean change on PCS from basal visit to follow-up visit was 4.33 points (95% CI: 2.93-5.73 points). The overall mean change on MCS from pre-treatment visit to follow-up visit was 4.89 points (95% CI: 2.75-6.53 points). In the subgroup of patients with cirrhosis, a significant improvement in both PCS and MCS was also observed. (Figure).

Conclusion: HRQL significantly improved in Latin-American patients with CHC who achieved SVR with DAAs, even in those with cirrhosis.



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P-56 LOW ROLE OF NON-INVASIVE FIBROSIS ASSESSMENT USING FIB-4 AND APRI IN PATIENTS WITH AUTOIMMUNE HEPATITIS

Aline Lamaison[1], Javier Troncoso[1], Pablo Villafranca[1], Marcel Bonilla[1], Maximo Cattaneo[2], Laura Carreño[3], Jaime Poniachik[2], Alvaro Urzúa[2]

[1] *Escuela de Medicina, Universidad de Chile, Santiago, Chile*
[2] *Sección de Gastroenterología, Departamento de Medicina Interna, Hospital Clínico Universidad de Chile, Santiago, Chile*
[3] *Departamento de Anatomía Patológica, Hospital Clínico Universidad de Chile, Santiago, Chile*

Introduction: The evaluation with non-invasive tests (NIT) of liver fibrosis is a more accessible method to estimate risk in patients with liver disease. The APRI and FIB-4 are scores that use easily accessible laboratory variables. They have been validated mainly in viral hepatitis and non-alcoholic fatty liver (NAFLD), but their usefulness in autoimmune hepatitis (HAI) has been little studied.

Objective: To evaluate the usefulness of APRI and FIB-4 in the screening of significant fibrosis (SF) in patients with HAI.

Methods: Observational, cross-sectional and retrospective study that includes liver biopsies performed between 2015-2018. The presence and degree of fibrosis were recorded according to the METAVIR scale; F3-F4 is considered FS. Histological diagnoses and clinical data were recorded.

Results: 93 HAI liver biopsies were analyzed; 80% women; average age 52 (18-82) years. Fibrosis present in 69% (F0: 29, F1: 12; F2: 10, F3: 15, F4: 27). FS at 45.2%. The diagnostic concordance (kappa index) of FS by biopsy and FIB-4 (> 3.25) was acceptable, but not for APRI (> 0.7). The ROC curve for APRI was only 0.58 and for FIB-4 0.75. With the cutoff of 0.7 the APRI had a sensitivity of 94%, but a specificity of only 10% and with the cutoff of 3.25 the FIB-4 had a sensitivity of 72% and specificity of 69%, for the diagnosis of FS.

Conclusion: In HAI the usefulness of NIT fibrosis evaluation using APRI and FIB-4 was scarce. FIB-4 could be more useful, but liver biopsy remains important for staging and prognosis.

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P-57 LIVER STEATOSIS AND STEATOHEPATITIS IN LIVER DISEASES OTHER THAN ALCOHOLIC AND NON-ALCOHOLIC FATTY LIVER

Ana Jiménez[1], Felipe Contreras[1], Miguel Leiva José[1], Nicolás Moreno[1], Claudio Altschiller[1], Andrea Jimenez[1], Alvaro Urzúa[1], Maximo Cattaneo[1], Laura Carreño[2], Juan Pablo Roblero[1], Jaime Poniachik[1]

[1] *Sección de Gastroenterología, Departamento de Medicina Interna, Hospital Clínico Universidad de Chile, Santiago, Chile*
[2] *Departamento de Anatomía Patológica, Hospital Clínico Universidad de Chile, Santiago, Chile*

Introduction: Fatty liver disease (FLD) alcoholic and non-alcoholic are prevalent conditions. The damage is determined by steatosis and steatohepatitis with or without fibrosis. There is little information on its role in the progression to significant fibrosis (SF) of chronic liver diseases (CLD) other than FLD.

Objective: To describe the frequency of steatosis and steatohepatitis in liver biopsies of patients with CLD other than FLD.

Methods: Observational, retrospective study with biopsies performed between 2015-2018. The presence and degree of steatosis, steatohepatitis and fibrosis were recorded according to the METAVIR scale; F3-F4 is considered SF.

Results: 268 biopsies analyzed; 93 with FLD are excluded. 175 are included: 53% autoimmune hepatitis (AIH), 27% primary biliary cholangitis (PBC), 7% viral hepatitis (VH) and 13% others. 74% women; age 52 (18-82) years; 58% had steatosis and 46% had steatohepatitis; 67% fibrosis, which was SF in 61%. Steatosis/steatohepatitis/fibrosis according to etiology: AIH 34%/46%/69%; PBC 19%/9%/53%; VH 77%/15%/39%. When analyzing the presence of SF according to the presence of steatosis or steatohepatitis: in steatosis 36% vs 48% without steatosis; In steatohepatitis there were more SF (65% vs 36%; p = 0.004). According to aetiology SF/non SF: HAI 92%/38% (p = 0.001); PBC 20%/24%; VH 50%/22% (NS).

Conclusion: There was a high frequency of steatosis and steatohepatitis in patients with CLD. The presence of steatohepatitis is associated with a higher degree of fibrosis in patients with CLD, particularly in AIH, which may have an impact on the evolution and treatment.

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P-58 CONCORDANCE BETWEEN ECOGRAPHY AND THE CONTINUOUS ATTENUATION PARAMETER (CAP) BY TRANSIENT ELASTOGRAPHY FOR THE DIAGNOSIS OF LIVER STEATOSIS

Juan Francisco Rozas, Katherine González, Camila Estay, Maximo Cattaneo, Alvaro Urzúa, Juan Pablo Roblero, Alexandra Sandoval, Jaime Poniachik

Servicio de Gastroenterología, Hospital Clínico de la Universidad de Chile, Santiago, Chile

Introduction: Abdominal ultrasound is the test of choice for the screening of liver steatosis (LS) however it has a poor performance (20%). Transient elastography (TE) through the Continuous Attenuation Parameter (CAP) has shown an adequate correlation with the degree of steatosis by liver biopsy.

Objectives: To evaluate the concordance between abdominal ultrasound and CAP by TE for the diagnosis of LS.

Methods: Observational study. 160 patients (age 53 ± 14 years, 66.2% women) referred for TE (FibroScan; Echosens). The main indication was non-alcoholic fatty liver disease (44.4%). A cutoff of 233 dB / m was defined for the diagnosis of CAP steatosis and cuts recommended by the manufacturer were used for staging the grade of LS. Clinical data and reports of abdominal ultrasounds performed in the 90 days prior to the examination were recorded. Statistical analysis by proportion of agreement and kappa index.

Results: LS was diagnosed by ultrasound in 85 patients (53.1%) vs 92 patients (57.5%) by CAP. The proportion of concordance between both exams was 74.3%, with a kappa index of 0.529. In patients with LS diagnosed by CAP, 73.9% had a concordant diagnosis by ultrasound, increasing to 82.4% when considering only patients with moderate and severe LS by CAP.

Conclusion: There is moderate concordance between CAP and ultrasound for the diagnosis of LS, which increases in moderate and severe steatosis. The CAP could be an alternative tool for the diagnosis of LS, with eventual greater precision in mild cases.

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P-59 LIVER TRANSPLANTATION: SIX YEARS EXPERIENCE IN A UNIVERSITY HOSPITAL OF CHILE

Hiru Chang[1], Danett Guiñez[1], Juan Francisco Rozas[2], Fodda Chelech[2], Víctor Henríquez[2], Alvaro Urzúa[2], Maximo Cattaneo[2], Juan Pablo Roblero[2], Jaime Poniachik[2]

[1] *Servicio de Medicina Interna, Hospital Clínico Universidad de Chile, Santiago, Chile*
[2] *Servicio de Gastroenterología, Hospital Clínico Universidad de Chile, Santiago, Chile*

Introduction: Liver transplantation (LT) has improved the quality of life and survival of patients in advanced stages of chronic liver disease (CLD). In the last decade, an increase in non-alcoholic steatohepatitis (NASH) as an indication for LT has been evidenced worldwide. There is little up-to-date information regarding the characteristics of LT performed in our country.

Objectives: To describe the clinical characteristics of LT performed at the Hospital Clínico de la Universidad de Chile in the last 6 years.

Methods: Retrospective study. LT performed between September 2013 and September 2019 were included. Clinical data, aetiology of DHC and MELD-Na were recorded at the time of transplantation.

Results: 145 LT were performed, 60.6% being men, the median age was 59 years (22-72 years). The main etiology of CLD was NASH (39.3%), followed by CLA attributed to alcohol (17.9%) and autoimmune hepatitis (7.6%). 33.1% of the patients had hepatocellular carcinoma (HCC), of which 54% were patients with NASH. The mean MELD-Na at transplantation was 22 ± 9 and the operational MELD 28 ± 5.

Conclusions: In our center, NASH is the first indication for LT, as well as the etiology most frequently related to the presence of HCC. These data are consistent with projections estimated worldwide. This information reaffirms the need for successful strategies to prevent and reverse the progression of NASH.

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P-61 LIVER TRANSPLANTATION IN HEPATOCARCINOMA: SURVIVAL AND RECURRENCE IN TRANSPLANTED PATIENTS WITH HEPATOCARCINOMA

Daniela García, Fodda Chelech, Andrea Jiménez, Alvaro Urzúa, Maximo Cattaneo, Juan Pablo Roblero, Alexis Iracheta, Jaime Poniachik

Sección de Gastroenterología, Departamento de Medicina Interna, Hospital Clínico Universidad de Chile, Santiago, Chile

Introduction: Hepatocellular carcinoma (HCC) is the most common malignant liver tumor. Liver transplantation (LT) is considered potentially curative, achieving a survival of 70% at 5 years and a tumor recurrence <15% when the Milan criteria are used.

Objectives: To study the frequency of tumor recurrence in transplant patients with HCC and to evaluate survival at 1 and 5 years.

Methods: Retrospective study of 79 transplant patients with HCC, with a median of 62 years, 69% male. Clinical characteristics, pre LT and post LT Milan criteria, post LT tumor recurrence, and 1 and 5 year survival were analyzed. Statistical analysis with Kaplan Meier.

Results: The etiology of cirrhosis was 35% NASH, 15% OH, 12% HCV, with an average MELD of 17%, Child A 17%, B 45% and C 38%. 92% met the pre-LT Milan criteria and 63% according to the findings of the explant, of the latter, 16% (8/50) presented microvascular invasion. Overall survival at 1 and 5 years was 96% and 75%, respectively. HCC recurrence occurred in 10% (8/79), 7/8 outside Milan in the explant, with an average recurrence of 8 months and a surplus of 18 months.

Conclusion: HCC recurrence in this study was within the values described in the literature, as well as short and long term survival. LT is an excellent treatment for the management of patients with HCC, achieving good survival results when they are within the Milan criteria.

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P-62 INFECTIONS IN THE FIRST MONTH POST LIVER TRANSPLANTATION IN A TRANSPLANT CENTER IN CHILE

Gabriel Uribe[1], Alvaro Urzua[2], Maximo Cattaneo[2], Juan Pablo Roblero[2], Jaime Poniachik[2]

[1] *Becado de Medicina Interna, Escuela de Medicina Universidad de Chile, Santiago, Chile*
[2] *Departamento de Medicina Interna, Sección Gastroenterología, Hospital Clínico de la Universidad de Chile, Escuela de Medicina Universidad de Chile, Santiago, Chile*

Introduction: Infections are an important cause of morbidity and mortality in the first month after liver transplantation (LT). It is important to know the local microbiology involved and the resistance patterns, to guide treatment appropriately.

Objective: To characterize infections in the first month after LT in patients from the Hospital Clínico de la Universidad de Chile.

Methods: Retrospective study of clinical records of 70 consecutive LT between February 2016 and October 2018.

Results: 20 infectious events in 16 patients (23%). In 75% it was possible to isolate agent. Eight (40%) were bacteria, 5 were fungi and 2 were viruses; 25% were bacteremia, 20% urinary tract, 20% pulmonary, 10% intra-abdominal, and 5% skin. The agents were: K. pneumoniae (2), S. epidermidis (2), E. faecium (1), C. freundii (1), E. coli (1), S. malthophilia (1). Candidas (4), Aspergillus (1), varicella zoster virus (1), respiratory syncytial virus (1). It was not possible to identify a focus in 4 patients. There was antimicrobial resistance in 7 (35%) of the cases, 3 being multi-resistant (2 due to K. pneumoniae and 1 due to S. epidermidis). 4 microorganisms showed antimicrobial resistance (E. coli, C. freundii, E. faecium, and C. glabatra). The infection was the cause of in-hospital mortality in 2 patients.

Conclusion: Infections in the first month after LT are frequent in our center, the majority of bacterial origin, as reported by international series. More than 1/3 of the patients present an agent with antimicrobial resistance, which should be considered in the choice of empirical therapy.

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P-63 TRENDS IN HOSPITALIZATION AND MORTALITY IN HOSPITALIZED PATIENTS WITH ALCOHOLIC HEPATITIS IN CHILE

Juan Pablo Roblero[1], Juan Pablo Arab[2], Christian Von Muhlenbrock[1], Alejandra Dominguez[3], Pablo Roblero[4], Jaime Poniachik[1]

[1] *Departamento de Medicina, Sección Gastroenterología, Hospital Clínico Universidad de Chile, Escuela de Medicina Universidad de Chile, Santiago, Chile*
[2] *Departamento de Gastroenterología, Escuela de Medicina, Pontificia Universidad Católica de Chile, Santiago, Chile*

[3] *Becada de Gastroenterología, Departamento de Medicina, Sección Gastroenterología, Hospital Clínico Universidad de Chile, Escuela de Medicina Universidad de Chile, Santiago, Chile*
[4] *Tesista Magister Sociología, Pontificia Universidad Católica de Chile, Santiago, Chile*

Introduction: Hospitalizations (H) and mortality by alcoholic hepatitis (AH) have increased in Europe and North America. In Chile we do not have published data.

Objectives: To describe the trend in H and mortality of hospitalized patients with AH in Chile.

Methods: Descriptive analysis of combination of cross-sections and regression models (STATA 15). Population data from MINSAL-DEIS 2001-2018 hospital discharge databases (HD) were used. HD by AH were identified by ICD-10 code K701.

Results: Between 2001-2018 there were 5,678 HD per AH. Average age 50 years. The rate of HD per AH per million inhabitants increased from 12.8 in 2001 to 18.5 in 2018 (44%). A linear estimate suggests that the rate increases by 0.55 points per year. In the population of 20-40 years it stands out that in women it increased by 64%. The only group where the rate of HD per AH increase steadily over time (in the rest the increase was less and less). The proportion by sex remained stable in 83% men and 17% women. In both sexes, 10% HD deceased, although in men a clear upward trend is observed (+0.32% annually, with a minimum of 6.5% HD in 2001 and a maximum of 15.3% HD in 2017), while in women the upward trend shows fluctuations.

Conclusions: In Chile in recent years there has been an increase in HD by AH. This increased incidence is reflected in higher mortality in patients hospitalized for AH. The increase in HD was more stable among women aged 20-40 years.

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P-64 THE ALCOHOL-ASSOCIATED LIVER DISEASE PARADOX IN CHILE: AN ASSESSMENT WITH DATA FROM THE NATIONAL HEALTH SURVEY (ENS 2016-2017)

Gianfranco Oneto[1], Luis Antonio Díaz[2], Francisco Idalsoaga[2], Juan Pablo Arab[2], Pablo Roblero[3], Maximo Cattaneo[4], Alvaro Urzua[4], Jaime Poniachik[4], Juan Pablo Roblero[4]

[1] *Department of Gastroenterology, Hospital Clínico San Borja Arriarán, Escuela de Medicina Universidad de Chile, Santiago, Chile*
[2] *Department of Gastroenterology, Escuela de Medicina, Pontificia Universidad Católica de Chile, Santiago, Chile*
[3] *Tesista Magister Sociología, Pontificia Universidad Católica de Chile, Santiago, Chile*
[4] *Department of Gastroenterology, Hospital Clínico Universidad de Chile, Escuela de Medicina Universidad de Chile, Santiago, Chile*

Introduction: It has been observed people with low-income-level (<IL) have greater liver injury due to alcohol consumption (AC), even when their consumption levels are lower or equal to those with high-income-level (>IL). The aim of this study was to evaluate alcohol-associated liver disease (ALD) paradox in Chile.

Methods: With data from the ENS 2016-17 (N=2,190; age 25-64) we constructed a logit regression model that estimated the effect hazardous AC (AUDIT≥8) on the probability of presenting ALD (GPT≥40 U/L). We focus on the interaction between hazardous AC and IL, controlling for the presence of metabolic syndrome (MS), diabetes mellitus (T2DM), obesity and tobacco.

Results: The average AC was 39g of alcohol per week (13g women <IL; 23g women >IL; 64g men, without differences by IL). In women, hazardous AC only increased ALD among those >IL who presented with obesity or MS in combination with T2DM (+36% obesity+MS +T2DM; $p<0.01$). In men, hazardous AC only increased ALD among those with <IL (16% without comorbidities, 17% with tobacco, 22% with MS, 26% with obesity, and 28% with all; $p<0.05$).

Conclusion: ALD paradox can be observed in Chile among men, but not among women. The evaluated associated comorbidities increased the effect of hazardous AC on ALD. It is necessary to investigate how the IL determines the patterns of AC and comorbidities. Among men, <IL is likely to be associated with more harmful drinking patterns and a greater presence of comorbidities. Among women, >IL is likely associated with higher AC and more harmful consumption patterns.

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P-65 CONCORDANCE OF FIB-4 WITH TRANSITION ELASTOGRAPHY IN THE DIAGNOSIS OF ADVANCED LIVER FIBROSIS

Juan Francisco Rozas, Katherine González, Camila Estay, Maximo Cattaneo, Alvaro Urzúa, Juan Pablo Roblero, Alexandra Sandoval, Jaime Poniachik

Servicio de Gastroenteroloía, Hospital Clínico de la Universidad de Chile, Santiago, Chile

Introduction: Transient elastography (TE) and non-invasive scores such as FIB-4 are non-invasive methods to evaluate liver fibrosis.

Objectives: To evaluate the concordance between TE and FIB-4 in the diagnosis of advanced fibrosis.

Methods: Observational study. 185 patients (53 ± 14 years, 71.4% women) referred for TE (FibroScan, Echosens). The main indication was non-alcoholic fatty liver disease (46%). Fibrosis staging sections recommended by the manufacturer were used. Clinical data and laboratory tests performed in the 30 days prior to the study were recorded. FIB-4 cuts > 3.45 and <1.45 were used to include and exclude advanced fibrosis, respectively. Statistical analysis by proportion of agreement and kappa index.

Results: 26 cases (14.1%) presented advanced fibrosis (F3-F4) according to TE. The proportion according to FIB-4 was 89%, with a kappa index of 0.43. 93.8% of the patients with FIB-4 without advanced fibrosis had a concordant TE evaluation (F0-F2). 59 cases (31.9%) obtained an indeterminate FIB-4 value, of which 52.5%, 30.5% and 17% corresponded to patients without fibrosis, significant fibrosis and advanced fibrosis according to TE, respectively.

Conclusion: There is a good concordance between FIB-4 and TE to rule out advanced fibrosis. The FIB-4 does not allow an adequate categorization of the degree of fibrosis in approximately one third of the cases.

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P-66 COULD PROTEIN CONTENT OF URINARY EXTRACELLULAR VESICLES BE USEFUL TO DETECT CIRRHOSIS IN ALCOHOLIC LIVER DISEASE?

E. Gonzalez[1], M. Azkargorta[2], C. Garcia-Vallicrosa[1], J. Prieto-Elordui[3], F. Elortza[2], S. Blanco-Sampascual[3], J.M. Falcon-Perez[1,4,5]

[1] *Exosomes Laboratory, Center for Cooperative Research in Biosciences (CIC Biogune), Basque Research and Technology Alliance (BRTA), Derio, Spain*
[2] *Proteomics Platform. Center for Cooperative Research in Biosciences (CIC Biogune), Basque Research and Technology Alliance (BRTA), Derio, Spain*
[3] *Servicio de Aparato Digestivo, Hospital Universitario de Basurto, Bilbao Vizcaya, España*
[4] *Centro de Investigación Biomédica en Red de Enfermedades Hepáticas y Digestivas (CIBEREHD), Madrid, Spain*
[5] *Ikerbasque Basque Foundation for Science Bilbao Spain*

Introduction: Alcohol abuse has a high impact on the mortality and morbidity related to a great number of diseases and is responsible for the development of alcoholic liver disease (ALD). It remains challenging to detect and evaluate its severity, which is crucial for prognosis.

Objective: In this work, we studied if urinary EVs (uEVs) could serve in diagnose and evaluate cirrhosis in ALD.

Methods: uEVs characterization by cryo-electron microscopy (Cryo-EM), Nanoparticle Tracking Analysis (NTA) and Western blotting (WB) was performed in a cohort of 21 controls and 21 cirrhotic patients. Then, proteomics of urinary EVs (uEVs) was carried out in a second cohort of 6 controls and 8 patients in order to identify new putative biomarkers for cirrhosis in ALD.

Results: uEVs concentration, size and composition were altered in cirrhotic patients. A total of 1304 proteins were identified in uEVs, and 90 of them were found to be altered in cirrhotic patients.

Conclusions: uEVs could be considered as a tool and a supplier of new biomarkers for ALD, whose application would be especially relevant in chronic patients. Yet, further research is necessary to obtain more relevant result in clinical terms.

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P-67 ULTRASOUND GUIDED TRANSIENT ELASTOGRAPHY FOR THE DIAGNOSIS AND STAGING OF LIVER FIBROSIS

Juan Francisco Rozas, Katherine González, Luis Salazar, Máximo Cattaneo, Juan Pablo Roblero, Alvaro Urzúa, Alexandra Sandoval, Jaime Poniachik

Servicio de Gastroenterología, Hospital Clínico de la Universidad de Chile, Santiago, Chile

Introduction: Transient elastography (TE) is a non-invasive method for the evaluation of liver fibrosis. Up to 20% of measurements fail, possibly due to the choice of probe position.

Objectives: To evaluate the use of ultrasound as a position guide (UPG) prior to TE to improve the measurement of liver stiffness (LS).

Methods: Prospective study of 237 patients (age 54 ± 14 years, 69% women) referred for TE (FibroScan, Echosens). The main indication was non-alcoholic fatty liver disease (52.3%). 65.4% of the patients were overweight or obese. LS was measured in each patient according to the manufacturer's recommendations and at the same appointment, in UPG. Fibrosis staging sections recommended by the manufacturer were used. Statistical analyzes performed with chi-square and t-test ($p < 0.05$).

Results: The mean LS with UPG was 7.6 (3.0-55.7) kPa. In 50 patients (21.1%) the measurement of LS failed without the use of ultrasound. There was not when using UPG. In the 187 patients with TE without ultrasound, IQR / LSM <10% was obtained in 67.3%. When UPG was used, it was obtained in 89% ($p = 0.001$). When comparing the fibrosis stage, in 21.4% of the cases it was modified when using UPG; in 15% it changed from significant or advanced fibrosis (F2-F4) to non-significant (F0-F1), or vice versa.

Conclusion: The use of UPG before TE improved the success rate and reliability of the LS measurement, improving fibrosis staging.

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P-68 FREQUENCY AND FACTORS ASSOCIATED WITH ANTIBIOTIC DE-ESCALATION IN PATIENTS WITH CIRRHOSIS AND BACTERIAL INFECTIONS

Maria Nelly Gutierrez Acevedo[1], Sabrina Barbero[2], Lorena del Carmen Notari[2], Marina Agozino[3], Jose Luis Fernandez[3], Silvina Tevez[3], Maria Margarita Anders[4], Nadia Grigera[4], Florencia Antinucci[4], Orlando Orozco Ganem[4], Maria Dolores Murga[5], Daniea Perez[5], Ana Palazzo[5], Liria Martinez Rejtman[6], Ivonne Giselle Duarte[7], Julio Vorobioff[8], Victoria Trevizan[8], Sofía Bulaty[8], Fernando Bessone[8], José Daniel Bosia[9], Silvia Mabel Borzi[9], Teodoro E. Stieben[10], Adriano Masola[10], Sebastian Eduardo Ferretti[11], Agñel Ramos[11], Diego Arufe[12], Ezequiel Demirdjian[12], Maria Pia Raffa[12], Cintia Elizabet Vazquez[13], Pablo Ruiz[13], José Emanuel Martínez[14], Hugo Fainboim[15], Mirta Peralta[15], Leandro Alfredo Heffner[16], Andrea Odzak[16], Andres Bruno[16], Melisa Dirchwolf[17], Jesica Tomatis[17], Astrid Smud[18], Manuel Mendizabal[19], Josefina Pages[19], Carla Bellizzi[20], Ana Martinez[20], Diego Giunta[21], Marcelo Valverde[22,23], Martin Elizondo[22,23], Ezequiel Mauro[24], Adrian Gadano[21,24], Sebastián Marciano[21,24]

[1] *Clinica Chapelco, San Martin de los Andes, Argentina*
[2] *Hospital Churruca Visca, CABA, Argentina*
[3] *Sanatorio Güemes, CABA, Argentina*
[4] *Hospital Aleman, CABA, Argentina*
[5] *Hospital A.C. Padilla, San Miguel de Tucuman, Argentina*
[6] *Hospital T J Schestakow, Mendoza, Argentina*
[7] *Hospital 4 de Junio, Sáenz Peña, Argentina*
[8] *Hospital Centenario, Rosario, Argentin*
[9] *Hospital Rossi, La Plata, Argentina*
[10] *Hospital San Martín, Paraná, Argentina*
[11] *Sanatorio Parque, Rosario, Argentina*
[12] *Sanatorio Sagrado Corazón, CABA, Argentina*
[13] *Hospital Regional de Río Gallegos, Río Gallegos, Argentina*
[14] *Sanatorio Boratti, Posadas, Argentina*
[15] *Hospital Muñiz, CABA, Argentina*
[16] *Hospital Argerich, CABA, Argentina*
[17] *Hospital Privado de Rosario, Rosario, Argentina*
[18] *Hospital Italiano de Buenos Aires, Infectious Diseases Section, CABA, Argentina*
[19] *Hospital Universitario Austral, Pilar Centro, Argentina*
[20] *Hospital Fernández, CABA, Argentina*
[21] *Hospital Italiano de Buenos Aires, Department of Research, CABA, Argentina*
[22] *Hospital de Clínicas, Montevideo, Uruguay*
[23] *Hospital Militar, Montevideo, Uruguay*
[24] *Hospital Italiano de Buenos Aires, Liver Unit, CABA, Argentina*

Background: Antibiotic de-escalation is considered a safe strategy that reduces costs and the risk of multi-drug resistant infections. However, its prevalence and associated factors in real-life practice were not reported in patients with cirrhosis in Latin-America.

Aims: To estimate the prevalence of antibiotic de-escalation in patients with cirrhosis in real life-practice, and to explore its associated factors.

Methods: We performed an analysis of the multicenter prospective cohort study of cirrhotic patients with bacterial infections throughout Argentina and Uruguay (clinicatrials.gov NCT03919032). Patients who died in the first 72 hs from the diagnosis of the infection were excluded. In accordance with guidelines, de-escalation was defined as changing the initially antimicrobials to a narrower spectrum regimen, or suspending one or more of the empirical antibiotics, according to culture results or to other clinical reasons, either in patients with culture-positive or culture-negative bacterial infections. We used inverse probability weighting (IPW) of having a culture-positive infection to estimate its causal effect on de-escalation.

Results: We included 450 patients. Most frequent infections were SBP (30.4%), and urinary tract infection (12.9%). Overall, 243 (54%) infections were culture-positive, and 207 (46%) culture-negative. De-escalation was reported in 85 patients (18.9%: 95% CI 15%-22%) at a mean of 3.3 ± 2.4 days from treatment initiation and was more frequent in culture-positive than culture-negative infections (28.4% vs 7.7%, p< 0.001). The table shows the crude analyses of variables associated with de-escalation. Culture-positive infection was strongly and independently associated with de-escalation (OR_{IPW} 6.08; 95% CI: 2.90-12.70; p < 0.001).

Conclusions: Antibiotic de-escalation was reported in one-fifth of in-patients with cirrhosis. Given that having a culture-positive infection had a strong effect on de-escalation, efforts should be made to increase the likelihood of obtaining adequate culture samples in a timely manner.

Table
Univariate analyses of factors associated with antibiotic de-escalation (n=450).

Variable	All (N=450)	Non de-escalated (N=365)	De-escalated (N=85)	OR (CI 95%)	p
Age (years), media (SD)	57.6 (12.6)	57.5 (12.8)	58 (11.6)	1.01 (0.98-1.02)	0.819
Male gender, num (%)	299 (66.4)	249 (68.2)	50 (58.8)	0.66 (0.4-1.1)	0.100
Cirrhosis etiology, num (%)[a]					
Viral	70 (15.6)	59 (16.2)	11 (12.9)	Ref	Ref
Alcohol	193 (42.9)	157 (43.2)	36 (42.3)	1.23 (0.59-2.57)	0.583
NASH	92 (20.5)	73 (20)	19 (22.4)	1.39 (0.62-3.16)	0.424
Cryptogenic	60 (13.4)	47 (12.9)	13 (15.3)	1.48 (0.61-3.61)	0.385
Other	34 (7.6)	28 (7.7)	6 (7.1)	1.14 (0.38-3.42)	0.803
Diabetes, num (%)	142 (31.7)	111 (30.5)	31 (36.9)	1.33 (0.81-2.18)	0.256
Child-Pugh score, media (SD)	9.8 (2.3)	9.9 (2.3)	9.8 (2.4)	0.98 (0.9-1.1)	0.713
MELD-Na Score, media (SD)[b]	19.8 (7.1)	19.7 (7.1)	20 (7.1)	1.01 (0.9-1.01)	0.711
SIRS at infection, num (%)[c]	134 (30.1)	98 (27)	36 (43.9)	2.11 (1.29-3.47)	0.003
Hospitalization in critical unit, num (%)[d]	100 (22.4)	76 (20.9)	24 (28.6)	1.51 (0.88-2.58)	0.132
ACLF, num (%)	127 (28.2)	100 (27.4)	27 (31.8)	1.23 (0.74-2.05)	0.421
Type of infection, num (%)					
Community acquired	237 (52.7)	202 (55.3)	35 (41.2)	Ref	Ref
HCA	98 (21.8)	74 (20.3)	24 (28.2)	1.87 (1.04-3.35)	0.035
Nosocomial	115 (25.6)	89 (24.4)	26 (30.6)	1.69 (0.96-2.97)	0.070
Site of infection, num (%)					
SBP	137 (30.4)	124 (34)	13 (15.3)	Ref	Ref
UTI	112 (24.9)	84 (23)	28 (32.9)	3.18 (1.56-6.49)	0.001
Pneumonia	58 (12.9)	49 (13.4)	9 (10.6)	1.75 (0.70-4.36)	0.228
Spontaneous bacteremia	33 (7.4)	21 (5.8)	12 (14.1)	5.45 (2.19-13.55)	<0.001
Other	110 (24.4)	87 (23.8)	23 (27.1)	2.52 (1.21-5.25)	0.013
Culture-positive infection, num (%)	243 (54)	174 (47.7)	69 (81.2)	4.73 (2.64-8.46)	<0.001
Adequate initial antibiotic, num (%)[a]	358 (79.7)	289 (79.4)	69 (81.2)	1.12 (0.61-2.04)	0.713
Infection by MDRO, num (%)	98 (21.8)	77 (21.1)	21 (24.7)	1.23 (0.71-2.13)	0.468

SD: Standard deviation. NASH nonalcoholic steatohepatitis. MELD-NA: Model for End-Stage Liver Disease-Sodium. SIRS: systemic inflammatory response syndrome. ACLF: Acute-on-chronic liver failure. HCA: Health care associated. SBP: Spontaneous bacterial peritonitis. UTI: Urinary tract infection. MDRO: multidrug-resistant organism. a) Available in 449 patients. b) Available in 442 patients. c) Available in 445 patients. d) Available in 447 patients. Univariate logistic regression was used for comparisons.

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P-69 RELATION BETWEEN CLINICAL AND ELASTOGRAPHIC CHARACTERISTICS OF CIRRHOTIC PATIENTS WITH ENDOSCOPIC VARICEAL LIGATION: A SINGLE-CENTER EXPERIENCE IN LIMA, PERU

Jorge Garavito-Rentería[1],
Rommel Zambrano-Huailla[2],
William J. Araujo-Banchon[3]

[1] *Unidad de Hígado, Hospital Nacional Arzobispo Loayza, Lima, Perú*
[2] *Servicio de Gastroenterología, Hospital III de Emergencias Grau EsSalud, Lima, Perú*
[3] *Grupo de Investigación Continental, Universidad Continental, Lima, Perú*

Background: Endoscopic variceal ligation (EVL) is the first-line therapy for one of the most frequent causes of mortality in liver cirrhosis, the gastrointestinal bleeding. Child-Pugh, MELD-Na score and transient elastography are noninvasive evaluation of liver cirrhosis. The purpose of the study is to describe and analyze the relation between clinical and elastographic features of cirrhotic patients with EVL.

Methods: Observational and analytical study. Clinical, biochemical, etiologic and elastographic characteristics of 153 cirrhotic patients with EVL admitted to the Gastroenterology Service of Hospital Nacional Arzobispo Loayza between 2017 and 2019 were analyzed using Kruskall Wallis and Mann-Whitney test.

Results: Among the 153 patients treated with EVL, 51.6% were male and 59.6% were older than 60 years. NAFLD (59.5%) was the most frequent cause of liver cirrhosis. Complications of all EVL sessions represented 5.88% (transient chest pain). Child-Pugh B (30 kPa, $p = 0.0016$) and MELD-Na score ≥ 15 (32.90 kPa, $p = 0.0003$) showed greater values of liver stiffness. No statistical difference was found in the liver stiffness measurements in relation to etiology of liver disease.

Conclusions: Decompensated cirrhosis with EVL has greater values of liver stiffness.

Keywords: Liver Cirrhosis, Esophageal Varices, Elastography, Endoscopy

Table
Comparison of the liver stiffness measurement in relation to etiology, Child-Pugh and MELD-Na score

	Transient Elastography (kPa)**	*P value**
Etiology		
NAFLD	24.00 (16.90)	0.3063
ALD	26.30 (25.90)	
Autoimmune hepatitis	18.20 (9.20)	
Viral hepatitis	25.80 (15.60)	
Child-Pugh		
A	21.15 (16.50)	0.0016*
B	30.00 (23.90)	
C	27.00 (11.50)	
MELD-Na score		
< 15	21.30 (17.60)	0.0003†
≥ 15	32.90 (23.20)	

* Kruskal-Wallis test
** Median and interquartile range
† Mann-Whitney test
NAFLD, Non-alcoholic Fatty Liver Disease; ALD, Alcoholic Liver Disease; MELD-Na, modified Model for End-Stage Liver Disease including sodium

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P-70 SEROPREVALENCE OF HEPATITIS C VIRUS IN DONORS OF THE BLOOD BANK OF THE GENERAL HOSPITAL OF MEXICO "DR. EDUARDO LICEAGA " A FOUR-YEAR EVALUATION

José Luis Pérez Hernández[1],
María Virginia Murcia Sandoval[2],
Alejandro Bonilla Ramos[2],
Carlos Andrés Campoverde Espinoza[2],
Yadira Lilian Béjar Ramírez[3],
María de Fátima Higuera de la Tijera[4]

[1] *Coordinador de la Clínica de Hígado Servicio de Gastroenterología, Hospital General de México "Dr. Eduardo Liceaga"*
[2] *Residente del servicio de Gastroenterología Hospital General de México "Dr. Eduardo Liceaga"*
[3] *Jefa de Servicio de Banco de Sangre, Hospital General de México "Dr. Eduardo Liceaga"*
[4] *Jefa del Servicio de Gastroenterología Hospital General de México "Dr. Eduardo Liceaga"*

Introduction: Since the molecular identification of the hepatitis C virus (HCV) in 1989 and the development of antibodies as an initial part of the diagnosis of this infection, blood banks have taken an important step to exclude potential donors with this infection, the World Health Organization established as a mandatory measure, the screening of all blood donated for transfusion for communicable infections such as HCV, HBV, HIV and HTLV as a mandatory measure. HCV affects between 130 and 150 million people worldwide, with a global prevalence of around 2.2%, and is the cause of 27% of cirrhosis cases and 25% of primary hepatocellular carcinoma cases in the world. In developed countries.

Objetive: To evaluate the seroprevalence of HCV and risk factors in potential blood donors in a tertiary hospital for 4 years.

Methods: Retrospective, observational, cross-sectional, descriptive study carried out in blood donors at the Hospital General de México "Dr. Eduardo Liceaga." From January 1, 2016, to December 31, 2019. Donor files were reviewed, and those with HCV positivity were analyzed. The SPSS v 22 program was used for statistical analysis.

Results: 92,214 donors were included. Of these, 1,265 patients (1.37%), 449 women (35%) and 816 men (64.5%) were positive. Risk factors found in the positive group: alcoholism 153 (12.09%), dental surgery 128 (10.11%). tattoos (6.87%), piercings (7.19%), acupuncture (3.08%) and risky sexual partners (0.23%).

Conclusion: The prevalence of 1.37% is similar to that reported in the literature; the predominance is slightly in the group of men, which contrasts with the past years that due to obstetric events, women were the most prevalent, perhaps it is related to tattoos, piercings, and use of intravenous or intranasal drugs. Although all the donors were approved in the official questionnaire, the positivity may be related to factors not declared by the patients themselves.

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P-71 EVALUATION OF ANXIETY AND DEPRESSION IN PATIENTS WITH CIRRHOSIS AND THE IMPACT ON THE QUALITY OF LIFE

Pérez Hernández José Luis[1], Flores Torres Andrea[2],
Lopez Pérez Raquel Yazmin[2],
Soto Hernández Karla Andrea[2],
Higuera de la Tijera Maria de Fátima[3]

[1] *Coordinador clínica de Hígado Hospital General de México "Dr. Eduardo Liceaga"*
[2] *Médico Residente de Gastroenterología Hospital General de México "Dr. Eduardo Liceaga"*
[3] *Jefe del Servicio de Gastroenterología "Dr. Eduardo Liceaga"*

Introduction: Patients with cirrhosis develop multiple complications (ascites, hepatic encephalopathy, hemorrhage, etc.), which contribute to the deterioration of the quality of life, these patients can also present anxiety and/or depression, but few studies show the prevalence of these in these patients, as well as its impact on the quality of life.

Objective: To determine the prevalence of anxiety and depression in patients diagnosed with liver cirrhosis and its impact on life quality.

Methods: Observational, prospective, cross-sectional, and analytical study. Patients with a diagnosis of liver cirrhosis of any etiology and any stage, evaluated in consultation and hospitalization in the gastroenterology service, were included. The SF-36 questionnaire was applied for quality of life and the Hospital Anxiety and Depression Scale (HADS) screening anxiety and depression.

Results: 108 patients were included, 55 (50.9%) men, and 53 (49.1%) women, aged 54.14 ± 11.29 years. The etiology: Due to alcohol 51 patients (47.2%), In patients with fatty liver associated with metabolic dysfunction (MAFLD) 24 patients (22.2%), autoimmune liver disease 16 patients (14.8%), chronic hepatitis C virus 10 patients (9.3 %), cryptogenic cirrhosis 7 patients (6.5%). The Child-Pugh stage: 48 patients (44.4%) A, 38 patients B (35.2%), and 22 patients C (20.4%). 84.3% of the patients had a primary caregiver. 26 patients (24.1%) were diagnosed with depression and 32 patients (29.6%) with anxiety. When evaluating SF36 of these patients, it was found that the 8 domains have deficient scores for emotional role and health.

Conclusions: Patients with liver cirrhosis develop anxiety and depression, which are frequently not diagnosed or treated; In the group that we studied, the prevalence of anxiety and depression is much more frequent than that documented in the literature, as well as a deterioration in the quality of life-related to stress, depression, and progression of cirrhosis.

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P-72 CLINICAL PROFILE OF PATIENTS SUBJECTED TO ENDOSCOPIC LIGATION OF ESOPHAGEAL VARICES IN A REFERENCE HOSPITAL IN THE DOMINICAN REPUBLIC

Mateo Duran Aileen, Sanchez Fabiolina

Department of Gastroenterology, (CEDIMAT), Santo Domingo, Dominican Republic

Introduction: From 40 to 50% of patients with cirrhosis present esophageal varices at the time of diagnosis of their disease. To date, the association of the presence of esophagogastric varices with splenic size, liver function, platelet count, and other clinical factors is controversial.

Objectives: To identify the clinical, laboratory and imaging variables that could alert us to the presence of esophageal varices in patients with portal hypertension. What is the clinical profile of patients undergoing endoscopic ligation of esophageal varices?

Methods: A descriptive, retrospective and longitudinal study was carried out. Data were collected from patients who underwent endoscopic ligation of esophageal varices from January 2015 to December 2020, electronic records were reviewed in search of laboratory variables, liver Doppler and upper endoscopy at the time of ligation, qualitative variables were expressed In simple frequency, the associations were made using the chi square test.

Results: 28 patients were included: 78.5% male and 21.5% female. The main cause of portal hypertension was NASH (28.5%), followed by alcohol. There were 10 patients (35.8%) in Child A; (32.1%) in B, and (32.1%) in C. The MELD mean was 15.1. Only (10.7%) presented with severe thrombocytopenia. Splenomegaly was present in (46.4%), with portal dilation in (39.3%). In (78.5%) there was concomitant portal gastropathy. (39.3%) were performed in a context of high bleeding and (100%) were large.

Conclusion: No determining clinical parameters were found in relation to the presence of esophageal varices.

Table
Distribution of patients.

Number of patients	28
Ligatures performed	31
Sclerotherapy performed	3
TIPS performed	2
Outpatient %	35.7
Patients admitted %	64.3
Bleeding at the time of ligation %	39.3
Average age in years	58.2
Men %	78.5
Women %	21.5
MELD Average	15.1
CHILD A %	35.8
CHILD B %	32.1
CHILD C %	32.1
Mild thrombocytopenia %	28.5
Moderate thrombocytopenia %	39.3
Severe thrombocytopenia %	10.7
Normal platelets	21.5
Expanded portal diameter %	39.3
Presence of portal thrombus %	17.8
Splenomegaly %	46.4
Large varicose vein size %	100

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P-73 HEPATIC CHANGES BY SARS-COV 2 IN PATIENTS OF THE INTENSIVE CARE UNIT OF THE TROPICAL MEDICINE CENTER IN RONDÔNIA

Camylla Felix Soares[1], Júlia Teixeira Ton[2], Luana Kamila Castilho Rodrigues[1], Stella Ângelo Zimmerli[1,3], Mariana Pinheiro Alves Vasconcelos[1]

[1] *Centro Universitário São Lucas – UNISIL, Porto Velho, Rondônia*
[2] *Centro Universitario Aparicio Carvalho – UNIFIMCA, Porto Velho, Rondônia*
[3] *Centro de Medicina Tropical de Rondônia – CEMETRON, Porto Velho, Rondônia*

Introduction: Coronavirus (SARS-CoV2) infection occurs through the receptor's angiotensin converting enzyme 2, present in the pulmonary, biliary, and hepatic epithelial cells. Therefore, the liver is a potential target for infection.

Objectives: To analyze liver changes resulting from Sars-Cov-2 infection in patients admitted to the Intensive Care Unit of the Rondônia Tropical Medicine Center (CEMETRON).

Methods: Patients admitted between April and August 2020 in the CEMETRON ICU were included in the study. Project approved by the Research Ethics Committee. For statistical analysis, the SPSS® program was used.

Results: 307 patients were admitted to the CEMETRON ICU. 81 (26.4%) non-COVID and 226 (73.6%) diagnosed with COVID. Among the 226 tested positive for COVID, 52.3% and 54.3% had, respectively, an increase in ALT and AST up to three times the upper limit of normal (40-120U/L). Non-COVID patients showed this increase in 20.8% for ALT and 33.3% for AST, being statistically significant (p: <0.005 for both). Transaminases above 120U/L had no statistically significant difference between the two groups. Regarding liver function assessed through bilirubin, albumin and platelets, there was no statistically significant difference in any of the variables (p: 0.93 p: 0.45 p: 0.599 respectively). The means varied within the normal range, except for both groups there was a tendency towards hypoalbuminemia (3.1 g / dL).

Conclusion: Patients with COVID evolved in more than 50% of the cases with changes in liver enzymes, showing that despite the inflammation, liver function was not directly affected. We associate hypoalbuminemia more with basal malnutrition than with hepatic impairment.

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P-74 ELEVATED CALPROTECTIN LEVELS ARE ASSOCIATED WITH MORTALITY IN PATIENTS WITH ACUTE DECOMPENSATION OF CIRRHOSIS

Camila Matiollo[1], Elayne Cristina de Moraes Rateke[1], Emerita Quintina de Andrade Moura[1], Michelle Andrigueti[1], Fernanda Cristina De Augustinho[2], Tamara Liana Zocche[2], Telma Erotides da Silva[2], Lenyta Oliveira Gomes[3], Mareni Rocha Farias[3], Janaína Luz Narciso-Schiavon[2], Leonardo de Lucca Schiavon[2]

[1] *Unidade de Laboratório de Análises Clínicas, Hospital Universitário, Universidade Federal de Santa Catarina*
[2] *Divisão de Gastroenterologia, Universidade Federal de Santa Catarina*
[3] *Centro de Ciências da Saúde, Universidade Federal de Santa Catarina*

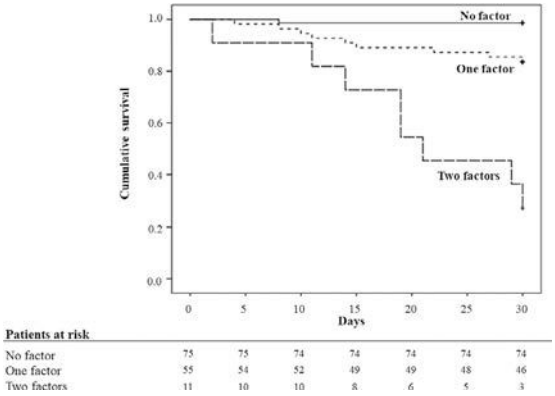
Introduction: Acute decompensation (AD) of cirrhosis is associated with systemic inflammation and increased circulating cytokines. The use of inflammatory markers, such as calprotectin, could provide information on the role of the immune response in the prognosis of cirrhosis.

Aims: To evaluate serum calprotectin levels in patients hospitalized complications of cirrhosis.

Methods: This prospective cohort study included 200 adult subjects hospitalized for complications of cirrhosis who were followed for up to 30 days after admission. Twenty healthy subjects and 20 patients with stable cirrhosis were evaluated as controls. Serum calprotectin was measured by the ELISA.

Results: Serum calprotectin levels were higher among the two groups of cirrhosis patients when compared to healthy controls. Greater median values of calprotectin were observed among patients with Child-Pugh C, ACLF, infection, ascites and hepatic encephalopathy. Concentrations of calprotectin were not related to the presence of ACLF, infection or to 30-days survival. However, when considered only patients with AD without ACLF (n = 144), higher values of calprotectin and CLIF-C ADs were associated with the lower survival in the univariate and multivariate Cox analyzes. The Kaplan-Meier survival probability was 98.7% in subjects with none of the factors (CLIF-C ADs <60 and calprotectin < 580 ng/mL), 83.6% in subjects with one of the factor (CLIF-C ADs ≥ 60 and calprotectin < 580 ng/mL or CLIF-C ADs < 60 and calprotectin ≥ 580 ng/mL) and 27.3% in subjects with both factors (CLIF-C ADs ≥ 60 and calprotectin ≥ 580 ng/mL), in which p = 0.002 between the first and second groups, and p < 0.001 between the first and third, and between the second and third groups (Figure).

Conclusions: The combination of the serum calprotectin and CLIF-C ADs may be useful in clinical practice to identifying patients with acute decompensation of cirrhosis and a very low 30-day survival rate.



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P-75 UPDATE OF CLINICO-EPIDEMIOLOGICAL CHARACTERISTICS OF PRIMARY BILIAR CHOLANGITIS IN URUGUAY

Etchandy Patricia[1], Chiodi Daniela[1], Veloso Victoria[2], Hernandez Nelia[1]

[1] *Clínica de Gastroenterología, Hospital de Clínicas, Facultad de Medicina, UDELAR, Montevideo*
[2] *Servicio de Gastroenterología, Asociación Española, Montevideo, Uruguay*

Introduction: Primary biliary cholangitis (PBC) is an autoimmune cholestatic liver disease of increasing prevalence, female-predominant, and usually diagnosed in the fifth decade of life.

Objective: To update the description of clinico-epidemiological characteristics of a series of Uruguayan patients diagnosed with PBC.

Methods: Descriptive, multi-centric study including Uruguayan patients diagnosed with PBC (at least two of the following criteria: biochemical cholestasis, autoantibodies —AMA, antinuclear with anti-centromere, sp100, or gp210 patterns— and compatible liver biopsy). Age, sex, symptoms, associated diseases, laboratory, imaging, histological and elastography parameters were recorded in the diagnosis.

Results: One hundred twenty-nine patients (81 belonging to the first report), 93% female, with an average age of 57 years old (23 - 81) were included. Sixty-nine percent had at least one symptom and 59% had pruritus. Eighty-three percent were AMA-positive and in 41% of patients one or more associated diseases were confirmed. (Table). Histological studies were available in 40 patients (31%), 26 (65%) of which had advanced liver fibrosis or cirrhosis. Elastography was available in 6 patients, 2 of which (33%) were diagnosed with cirrhosis. Six patients (5%) were diagnosed with cirrhosis due to presence of ascites. The global survival rate was 84%. Survival depending on the presence or absence of symptoms was 251 months (95% CI, 229 - 274) and 241 months (95% CI, 238 - 275) respectively (p>0.05). Median survival for cirrhotic patients was 201 months (CI 95%, 160 – 242) versus 191 (CI 95%, 172 – 210) for non-cirrhotics (p>0.05).

Conclusions: As previously reported, female prevalence and frequent association with other diseases –mainly autoimmune– remain. The presence of symptoms or cirrhosis showed no association with survival.

	n	%
Symptomatic	90	69
Pruritus	76	59
Asthenia	45	35
Hypermigmentation	18	14
Jaundice	23	18
Xanthomas	4	3
Associated diseases	53	41
Sjogren	22	17
Hypothyroidism	39	30
Sclerodermia	8	6
Raynaud	15	12
Rheumatoid arthritis	10	8
Vitiligo	4	3
Celiac Disease	5	4
Overlap HAI	6	5
Osteoporosis	19	15
Osteopenia	26	20
Breast neoplasm	1	1
Recurrent urinary infections	6	5

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P-76 PROGNOSTIC FACTORS FOR SEVERITY AND MORTALITY IN COVID-19: ARE LIVER TESTS IMPORTANT?

Fernanda Manhaes Pozzobon[1,3], Perez Renata Mello[2,3], Henrique Custódio Goudar[1], Anna Butter Nunes[1], Maria Chiara Chindamo[1,3]

[1] *Rede D'Or São Luiz, Barra D'Or Hospital, Rio de Janeiro, Brazil*
[2] *D'Or Institute for Research and Education (IDOR), Rio de Janeiro, Brazil*
[3] *Federal University of Rio de Janeiro (UFJR), School of Medicine, Rio de Janeiro, Brazil*

Introduction: The identification of prognostic factors related to worse outcomes in the coronavirus disease (COVID-19) is essential in the care of this challenging disease.

Objectives: To identify prognostic factors that may help in decision-making related to patients' care with COVID-19.

Methods: This retrospective observational study included confirmed COVID-19 patients hospitalized in a private Brazilian hospital between March and September/2020. The following variables were analyzed: age, gender, comorbidities, admission laboratory data (leukocyte, lymphocyte and platelet count, D-dimer [DD], C-reactive protein [CRP], aspartate aminotransferase [AST], alanine aminotransferase [ALT], and total bilirubin [Bb]) and during follow-up (DD, CRP, AST, ALT, Bb). The severity of disease was evaluated according to the extension of pulmonary infiltration by CT scan at admission, classified as mild (<25%), moderate (25%-50%) or severe (>50%), and by mechanical ventilation need.

Results: 414 patients (63% males, aged 61) were included. The main comorbidities were arterial hypertension (54%) and diabetes mellitus (34%). Typical pulmonary involvement was present at admission in 318 patients: 51% mild, 39% moderate, 10% severe. 65% of patients were admitted to ICU and 25% needed mechanical ventilation. The mortality rate was 20.4%. Admission DD values (p=0.012), Bb (p=0.039), need for mechanical ventilation (p<0.001) and the extension of lung infiltration (p<0.001) were associated with mortality. During follow-up, the peak of DD (AUROC=0.875), CRP (AUROC=0.875), AST (AUROC=0.820) and Bb (AUROC=0.804) were significantly associated to mortality and the peak levels of DD (p=0.019), AST (p=0.039),

ALT (p=0.021) and Bb (p=0.011) were associated to severe pulmonary infiltration. Follow-up levels of AST >60U/L (N<59) with specificity=76% and sensitivity=78%, ALT>70U/L (N<51) with specificity=77% and sensitivity=58% and Bb>0.5mg/dL with specificity=77% and sensitivity=73%, were able to predict mortality.

Conclusion: In association with well-known prognostic factors of mortality, serial measurements of aminotransferases and Bb can identify patients of greater severity and higher mortality risk.

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P-77 PREVALENCE OF HCV INFECTION DETECTED BY RAPID ANTIBODY TEST IN SCREENING CAMPAIGNS IN LIMA AND CALLAO – PERU

Javier Diaz Ferrer[1], Pedro Montes Teves[2], Vanessa Valenzuela Granados[3], Kriss Rodríguez Romero[4], Rocío Galloso Gentille[5], Rocío Ramos Miraval[6]

[1] *Departamento de Aparato Digestivo. Hospital Nacional Edgardo Rebagliati Martins. ESSALUD. Facultad de Medicina UNMSM*
[2] *Servicio de Gastroenterología. Hospital Nacional Daniel A. Carrión – Callao*
[3] *Servicio de Gastroenterología, Hospital Cayetano Heredia*
[4] *Servicio de Gastroenterología, Hospital Central Fuerza Aérea del Perú*
[5] *Servicio de Gastroenterología, Hospital Nacional San José – Callao*
[6] *Servicio de Gastroenterología, Hospital Centro Médico Naval Cirujano Mayor Santiago Távara*

Introduction: In Peru the VHC prevalence based on population at risk and blood products donors' studies is around 1 %. A recently published study on general population found a 0.1% prevalence.

Aim: To determine the prevalence of infection with Hepatitis C Virus detected by rapid antibody test in a population that attends 3 public hospitals in Lima and Callao in Peru.

Methods: Descriptive and cross-sectional study. From July to September 2016, Hepatitis C screening campaigns were carried out with a rapid test for detection of antibodies in 3 public hospitals in Lima and Callao. These campaigns were aimed at the general population and healthcare workers. The study population was people aged 18 and older who voluntarily attended the screening campaigns. Prior to performing the rapid test, the informed consent of the participants was obtained.

Results: A total of 920 participants were screened during the campaigns. We detected one case (Prevalence 0.11%), whose result was later confirmed with serology and viral load. The average age of the studied population was 43.6 +/- 13.22 years. The distribution by sex was men 668 (72.6%). The risk factors detected in the study population were: a prior of blood transfusion: 9.2%, antecedent of major surgery: 38.1%, tattoos 9.9%, healthcare worker: 59.4%. In the case detected, the only risk factor identified was an antecedent of blood transfusion.

Conclusion: The prevalence of HCV infection detected by rapid test in the study population was 0.11%.

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P-78 USE OF ARTERIAL CONDUITS IN LIVER TRANSPLANTATION: OUTCOMES IN A SINGLE CENTRE IN PERU

Alfonso Solar Peche[1], Wilmer Bacilio Calderon[1], Carlos Rondon Leyva[1], Omar Mantilla Cruzatti[1], José Rivera Romani[1], Bertha Cardenas Ramirez[1], Carmen Cerron Cabezas[1], Augudberto Montufar Valer[1], Saúl Espinoza Rivera[1], P. Martin Padilla Machaca[1,2]

[1] *Transplant Department at Guillermo Almenara Irigoyen National Hospital, Lima-Perú*
[2] *Universidad Nacional Mayor de San Marcos, Lima -Perú*

Introduction: Being one of the South American countries with the cadaveric donor lowest rate, doesn't except us from having complex vascular inflow situation; Is in this context, the alternative of using arterial conduit to solve a poor arterial stream in recipients is always present. (ReTransplant, or risk factors of the Hepatic artery Thrombosis)

Objective: Describe the outcome and the following of adult patient with arterial conduit in liver transplant at the Guillermo Almenara Irigoyen National Hospital 2000-2020.

Results: We Retrospectively reviewed, From March 2000 to February 2020, 274 Adult cadaveric liver Transplants have been performed, from this cohort we show use of 33 aortohepatic arterial ducts (12%) and the primary etiology was: NASH 11 cases (33,3%), follow by AIH 06 cases(18,2%) and VHC, Cryptogenic, CBP each with 04 cases meaning 12.1% respectively. It had been used in primary transplants in 25 cases (75,8%) and in 7 retransplant (25,2%); In 01 case (3%) we used as an alternative for a second retransplant. The global survival for the first years was 75% and 3 years survival was 71%. We identify 03 cases of complication (9%), having 01 hepatic arterial thrombosis, 01 partial arterial conduit thrombosis and 01 psedoaneurism arterial conduit.

Conclusion: Performing an arterial conduit must be one of the feasible alternatives in complex situation in any liver transplant group. It is a save technique with no negative impact on survival and it seems to be associate with other vascular complications.

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P-79 CHOOSING WISELY IN VIRAL HEPATITIS: RECOMMENDATIONS FROM THE BRAZILIAN SOCIETY OF HEPATOLOGY

Cristiane A. Villela-Nogueira[1], Maria Lúcia Gomes Ferraz[2], Mário Guimarães Pessoa[3], Francisco José Dutra Souto[4], Letícia Cancella Nabuco[5], Henrique Sérgio Moraes Coelho[1], Paulo Lisboa Bittencourt[6], Carlos Eduardo Brandão-Mello[7], Members of the Brazilian Society of Hepatology

[1] *Faculdade de Medicina e Serviço de Hepatologia, Hospital Universitário Clementino Fraga Filho, Universidade Federal do Rio de Janeiro*
[2] *Disciplina de Gastroenterologia, Universidade Federal de São Paulo*
[3] *Divisão de Gastroenterologia e Hepatologia, Hospital das Clínicas da Universidade de São Paulo*
[4] *Universidade Federal do Mato Grosso*
[5] *Serviço de Hepatologia, Hospital Universitário Clementino Fraga Filho, Universidade Federal do Rio de Janeiro*
[6] *Hospital Português, Salvador, Bahia*
[7] *Hospital Universitário Gaffree e Guinle, Escola de Medicina e Cirurgia da Universidade do Rio de Janeiro, Brazil*

Introduction: Choosing wisely (CW) initiative aims to improve daily practice supported by evidence avoiding unnecessary medical

tests, procedures, and treatments. This philosophy is of utmost importance in managing viral hepatitis (VH), increasingly carried out by primary care physicians. Objective: To propose evidence-based CW recommendations in VH.

Methods: The Brazilian Society of Hepatology (SBH) selected a panel of experts in VH who selected evidence-based CW recommendations, which were subsequently scrutinized and ranked by all members of SBH using a web-based approach. Results: Eight recommendations were chosen in order of importance, including 1) Do not order anti-HCV testing after achieving sustained virological response; 2) Do not request serial HCV viral load to evaluate HCV progression, 3) Do not add ribavirin to direct-acting antivirals in non-cirrhotic, naïve HCV patients; 4) Do not screen for hepatocellular carcinoma in HCV patients with none to moderate fibrosis; 5) Do not request anti-HBs after HBV vaccination, except for children born to HBV-infected mothers, hemodialysis patients, healthcare professionals, sexual contacts of chronic HBV carriers, HIV-positive persons and immunocompromised individuals (hematopoietic stem-cell transplant recipients or persons receiving chemotherapy); 6) Do not order complete HBV serology for screening HBV infection; 7) Do not order complete HBV serology for evaluation of acute hepatitis B; 8) Do not treat chronic hepatitis B based on a single ALT and viral load results, except in cirrhotic patients.

Conclusion: These recommendations defined by SBH may help general practitioners adopt a more rational and cost-effective approach to handling VH cases in Brazil.

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P-80 SEVERELY OBESE PATIENTS HAD HEPATIC FIBROSIS EVEN WITHOUT METABOLIC SYNDROME

Carla Daltro, Ana Paula Berbeth-Casto, Luiz Antonio R de-Freitas, Antônio Ricardo Andrade, Helma P. Cotrim

Nonalcoholic Steatohepatitis Study Group – Medicine School – Federal University of Bahia (UFBA), Brazilian Research Council (CNPQ), Brazil

Introduction: Metabolic Associated Fatty Liver Disease (MAFLD) is a clinic-pathological condition commonly associated with metabolic syndrome (MS) and this association is frequently found in severely obese.

Objective: To compare clinical and histological characteristics of MAFLD in obese with and without MS.

Methodology: Cross-sectional study with severely obese patients diagnosed with MAFLD between Sep/2014 and May/2015. MAFLD was diagnosed by liver biopsy during bariatric surgery. MS diagnosis was based on the International Diabetes Federation criteria. Statistical analyses were performed using chi-square and t tests. P<0.05 were considered significant.

Results: Table 1 shows clinical and histological characteristics of the patients according to the presence of MS.

Conclusion: The results reinforce the relevance of evaluating NAFLD in severely obese by histology. In this simple of obese with MAFLD had hepatic fibrosis, even those without MS.

Characteristics	Total 170 (100%)	Metabolic Syndrome		p
		Yes 95 (55,9%)	No 75 (44,1%)	
Women	102 (60,0%)	52 (54,7%)	50 (66,7%)	**0,115**
Age (years) [1]	37,1 (10,7)	39,7 (10,8)	33,8 (9,9)	**<0,001**
	43,2 (5,3)	44,4 (5,9)	41,6 (4,0)	**<0,001**
Body Mass Index (kg/m²) [1]				
Arterial hypertension	82 (48,2%)	68 (71,6%)	14 (18,7%)	**<0,001**
Dyslipidemia	138 (81,7%)	88 (93,6%)	50 (66,7%)	**<0,001**
Dysglycemia	69 (40,6%)	65 (68,4%)	4 (5,3%)	**<0,001**
Diabetes mellitus	20 (11,8%)	20 (21,1%)	-	**<0,001**
Insulin resistance [2]	93 (72,7%)	55 (84,6%)	38 (60,3%)	**0,002**
Histology				**0,006**
Isolated steatosis	31 (18,2%)	10 (10,5%)	21 (28,0%)	
NASH + NASH F1	108 (63,5%)	63 (66,3%)	45 (60,0%)	
NASH F2 + NASH F3	31 (18,2%)	22 (23,2%)	9 (12,0%)	
Any kind of fibrosis	131 (77,1%)	80 (84,2%)	51 (68,0%)	**0,013**

(*continued*)

NASH: Nonalcoholic steatohepatitIs; F1: Grade 1 fibrosis; F2: Grade 2 fibrosis; F3: Grade 3 fibrosis. [1] Mean and standard deviation; [2] Diabetic patients were excluded from analysis.

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P-81 ALTERNATIVE THERAPIES FOR DIFFICULT-TO-TREAT AUTOIMMUNE HEPATITIS: AN EXPERIENCE OF THREE BRAZILIAN REFERRAL CENTERS

Ana Julia Cardozo[1], Nayana Van Drummond[1], Amanda Longo[1], Eduardo Cancado[1], Claudia Couto[2], Luciana Faria[2], Gustavo Borgongino[2], Vivian Rotman[3], Andreia Evangelista[3]

[1] *HC FM USP (São Paulo)*
[2] *UFMG (Belo Horizonte)*
[3] *UFRJ (Rio de Janeiro)*

Introduction: 15% of patients with autoimmune hepatitis (AIH) are refractory to usual treatment. The management of these cases is still challeging.

Aims: To evaluate the efficacy and safety of cyclosporine (CYA), mycophenolate (MMF) and tacrolimus (FK).

Methods: This is a retrospective study with alternative therapies (AT) for non-response or intolerance to azathioprine (AZA) and prednisone (PD). Biochemical remission (BR) was defined as the normalization of AST and ALT; and histological remission (HR) as periportal activity 0/1 or histological activity index <4 after at least 18 months of BR. Liver enzymes before and after AT were compared by Wilcoxon Test and categorical variables by Chi-square test; p value ≤0.05 was significant.

Results: 60 patients (88.3% female, 86.7% type 1 AIH). At diagnosis 56.7% had cirrhosis, 15% ascites. AZA+PD was the initial regimen in 75%. The median time AT onset was 2.23 yr. AT was introduced due to absence of BR (26.7%), absence of BR + adverse effects (AE) of AZA (11.7%), of AZA/PD (50%), BR without HR (6.7%) and liver dysfunction (3.3%). The main AE were from AZA: hepatotoxicity (10), gastrointestinal intolerance (10) and cytopenias (8). At AT onset, 65% were using AZA+PD. AT were MMF+PD (36.7%) and CYA+AZA± PD (30%). After 6 and 12m of AT there was significant drop in AST/ ALT/ γGT. BR and HR were achieved in 53.3% and 8.3% respectively. In those with BR, HR occurred in 15.6%. Cirrhosis at diagnosis resulted in lower BR. AD was used for a median of 2.7 yr; 28% had AE (gingival hyperlasia, infection and diarrhea). AT were withdrawn in 33.3%: non-response (5), liver dysfunction (4), AE (4), HR (3), infections (2), pregnancy (1) and loss of follow-up (1). Five patients transplanted and 1 died.

Conclusions: Although BR was acceptable in difficult-to-treat AIH, HR was low and AT was withdrawn due to non-response in 8% and liver dysfunction in 6.6%. AT were well tolerated, with few AE. Prospective studies with a larger sample size are still needed.

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P-82 URSODEOXYCHOLIC ACID AND/OR CIPROFIBRATE FOR TREATING PATIENTS WITH PRESUMPTIVE DIAGNOSIS OF LOW PHOSPHOLIPID CHOLELITHIASIS, A CLINICAL SPECTRUM OF PROGRESSIVE FAMILIAL INTRAHEPATIC CHOLESTASIS TYPE 3

Fernanda Linahres, Debora Terrabuio, Michelle Braga, Laura Guedes, Flair Jose Carrilho, Eduardo Cancado

HC FM USP (São Paulo)

Introduction: Low Phospholipid-Associated Cholelithiasis (LPAC) is a clinical spectrum of Progressive Familial Intrahepatic Cholestasis type 3 (PFIC3), with mutations in the *ABCB4* gene, reduced levels of phosphatidylcholine in bile, formation of cholesterol gallstones, damage of bile ducts epithelium and cholestasis. Ursodeoxycholic acid (UDCA) is effective and fibrates may also be used to activate *PPAR-α receptor,* inducing bile secretion of phosphatidylcholine.

Aim: Retrospectively evaluate efficacy and safety of ciprofibrate in LPAC/PFIC3.

Method: Diagnosis of PFIC3 was confirmed by detection of mutations of ABCB4 gene. LPAC diagnosis was suggested by 2 out of 5 criteria: biliary symptoms before 40 years; recurrence after cholecystectomy; intrahepatic lithiasis; cholelithiasis in first−degree relatives; intrahepatic cholestasis of pregnancy or contraceptive−induced cholestasis. Enzymes, liver function and pruritus were analyzed after 3, 6 and 12 months of UDCA and after ciprofibrate 100mg/day using the Wilcoxon test.

Results: 27(93%) patients with clinical diagnosis of LPAC and 2 of PFIC3. 23 (79%) female with mean age at onset of symptoms of 26.7± 13.6 years. 23(80%) had family history of biliary disease; 22(76%) cholelithiasis before 40 years; 7(24%) intrahepatic lithiasis. 22/29 (78%) received ciprofibrate after 4.5±4.9 months of UDCA use, in a mean dose of 13.1±2.2mg/kg/day. During UDCA there was a significant decrease in aminotransferases, alkaline phosphatase(AP) and gamma-glutamyltransferase(GGT) levels, without significant improvement in the liver function. After addition of fibrate, pruritus disappeared in all 7 patients, with significant improvement of AP, GGT and albumin in the third month. There was no significant renal dysfunction. Fibrate was discontinued in 8: 1 liver transplantation, 2 irregular use, 5 side effects. 27 patients are still in follow up.

Conclusion: Ciprofibrate was beneficial to improve pruritus and laboratory tests in LPAC/PFIC3 after partial response with UDCA. Fibrate therapy was safe and well tolerated.

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P-83 RELEVANCE OF RENAL CHANGES IN A LARGE SERIES OF SEVERELY OBESE PATIENTS WITH METABOLIC ASSOCIATED FATTY LIVER DISEASE

Kellyane Dias Carvalho, Carla Daltro, Claudia Daltro, Helma P. Cotrim

Nonalcoholic Steatohepatitis Study Group − Medicine School, Federal University of Bahia, CNPQ, Brazil

Introduction: Metabolic associated fatty liver disease (MAFLD) is the most common cause of chronic liver disease worldwide. Recently, the relationship between MAFLD and chronic kidney disease has raised more interest because this relationship may be an additional factor that interferes with the clinical course and prognosis of this frequent liver disease.

Aim: To evaluate the prevalence and clinical relevance of renal changes in severely obese patients. with MAFLD.

Methodology: A cross-sectional study was conducted with obese patients (BMI > 35 Kg/m^2) and MAFLD coming from a surgical treatment of obesity center between 2015 and 2018. MAFLD criteria: presence of steatosis (abdominal ultrasound); in addition to one of the following three criteria, overweight/obesity, type 2 diabetes mellitus (T2DM), and other features of metabolic disfunction. FIB-4 and APRI scores were used to define presence or evaluate liver fibrosis. Glomerular filtration rate was estimated by the CKD-EPI equation and the normal was considered ≥ 90 and <120 mL/min/1,73 m^2.

Results: A total of 394 individuals with MAFLD were included. Of these, 279 cases were female (70.8%) with a mean age of 36.8± 10 years. Arterial hypertension was observed in 162(41.1%) of the subjects and 66 (16.8 %) had T2DM. Glomerular filtration rate of 60-89 ml/min was observed in 57 (14.5%), 31 of these were not arterial hypertension (54.4%) and 46 (80.7%) did no presented T2DM. Thirteen (3.3%) of the obese cases with MAFLD already had advanced fibrosis.

Conclusion: The results show that severely obese with MAFLD may present renal alterations without other metabolic disfunction. The data also suggest that attention should be given to this complication in the obese patients, that can be the only risk factor to MAFLD.

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P-84 IMPLEMENTATION OF A STEP-BY-STEP STRATEGY BASED ON THE TREATMENT CASCADE TO ELIMINATE HEPATITIS C VIRUS INFECTION IN THE HOSPITAL CENTRAL DE LAS FUERZAS ARMADAS FROM URUGUAY. PRELIMINARY REPORT

Juan Otegui, Victoria Mainardi, Daniela Olivari, Ana Fernández, Carolina Ferreira, Solange Gerona

Servicio de Enfermedades Hepáticas, Centro Nacional Hepato-Bilio-Pancreático (UDA), Programa Nacional de Traslpante Hepático, Hospital Central de las Fuerzas Armadas, Montevideo, Uruguay

Background: Strategies to achieve the World Health Organization target of eliminating hepatitis C virus (HCV) infection by 2030 (diagnosis of 90% of chronically infected persons and treatment of 80%) are required.

Objectives:

1) Determinate the status of HCV infection in the Hospital Central de las Fuerzas Armadas (HCFFAA) from Uruguay
2) Implement and evaluate a step-by-step elimination strategy.

Methods: A treatment cascade was constructed by:

A Estimation of the number of HCV chronic infection population of the HCFFA based on Uruguay prevalence (0,7%)

B Analyzing medical records of the Hepatology service (2000 −2020).

The strategy consisted on contacting sequentially patients not cured:

1. HCV RNA confirmed
2. HCV antibody positive, RNA not tested

Results:

1.008 chronically HCV infected people were estimated.

165 HCV antibody positive persons were detected, 30 were excluded (RNA negative).

Of the 135 left, 113 had RNA confirmation, 76 received treatments and 70 achieved sustained virological response (SVR).

Of 6 persons without SVR, 3 are currently on treatment and 3 could not be contacted.

Of 36 people RNA confirmed not treated, 20 were contacted: 10 were prescribed treatment and 10 were not candidate.

Of 22 HCV antibody positive people without RNA confirmation, 10 were contacted and RNA was requested (results pending).

Treatment prescription increased from 67 to 76% of HCV chronically infected RNA confirmed patients.

Conclusion: Strategy implementation was successful improving access to treatment.

Active testing is the next step plan to overcome the barrier of patient unawareness of HCV infection.

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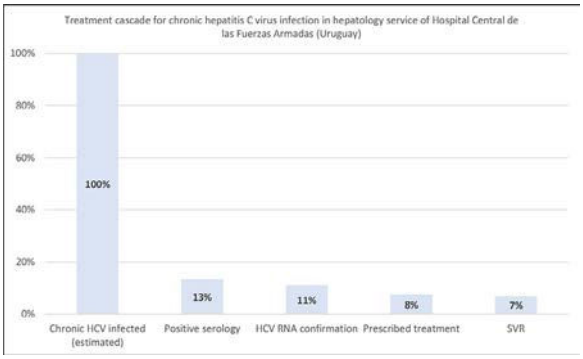

Fig. 1. Treatment cascade for chronic hepatitis C virus infection in hepatology service of Hospital Central de las Fuerzas Armadas (Uruguay)

P-85 USE OF LOW DOSES OF GENERIC TACROLIMUS AND THERAPEUTIC LEVELS IN LIVER TRANSPLANT PATIENTS: RESULTS FROM A SINGLE CENTER IN PERU

P. Martín Padilla-Machaca[1,2], Cristopher Dávila[3], Bertha Cárdenas[1], Carmen Cerrón[1], Alberto Mantilla[1], José Rivera[1], Alfonso Solar[1], Augudberto Montufar[1], Saul Espinoza[1], Carlos Rondón[1]

[1] *Departamento de Trasplantes, Hospital Nacional Guillermo Almenara, EsSalud, Lima, Perú*
[2] *Departamento de Medicina, Universidad Nacional Mayor de San Marcos, Lima, Perú*
[3] *Residente 3er año Farmacia Clínica, Universidad Nacional Mayor de San Marcos, Lima, Perú*

Introduction: Tacrolimus is the basis of immunosuppressive treatment in liver transplantation, with dosages of blood levels to ensure adequate graft function. In Peru, since 2005 generic tacrolimus has been used exclusively in all transplant centers due to lower costs. There are no presentations (0.5 mg), necessary for its use in a group of transplanted patients who require low doses of the drug.

Objectives: To show the results of the use of low doses (<2 mg/day) of generic tacrolimus, using 0.5 mg capsules and measure tacrolimus blood levels in correlation to the time of transplantation and the frequency of liver graft rejection, toxicity, or infections in this group of patients.

Methods: Observational, descriptive, cross-sectional, and retrospective study. Demographic data, transplant time, dose and blood levels of tacrolimus, rejection, and adverse effects were obtained from electronic medical records from October to December 2020. Inclusion criteria: adults, doses: <2 mg/day, > 3 months use of generic tacrolimus (NORGRAF: The Madras Pharmaceuticals, India) using 0.5 mg capsules, prepared by the Pharmacy Service at the Guillermo Almenara Hospital. Exclusion criteria: Pediatrics, retransplant, combined transplant. Statistical analysis and processing was using SPSS 23.

Results: Eleven of 246 patients (4.52%) were identified. All patients had blood levels within the therapeutic range in relation to transplantation time and graft function. Average daily dose: 1.3 mg (0.5-1.5 mg /d). Average blood levels: 5.82 ng/L (3.57-10.3 ng / ml). Average transplant time: 73 months (3-120 months). There were no rejection episodes or adverse effects of nephrotoxicity, neurotoxicity, or infections.

Conclusion: The use of low doses of generic tacrolimus (<2 mg/d), using 0.5 mg capsules prepared by the Pharmacy service, allows for the proper adjustment of the daily dose of immunosuppression, obtaining therapeutic success in the prevention of cellular graft rejection, especially in long-standing liver transplant patients without presenting toxicity.

Patients	N	Daily dose(mg/día)			Blood level(ng/L)			Transplant Time (months)		
		X	SD	Me	X	SD	Me	X	DS	Me
Total	11	1.3	0.25	1.5	5.82	2.11	5.46	73.2	29.25	78
Male	8	1.4	0.23	1.5	6.13	2.32	6.17	63.1	26.50	68
18-39 y	1	1.5			9.45			74		
60-79 y	7	1.4	0.24	1.5	5.65	2.05	5.46	61.6	28.24	62
Female										
40-59 y	3	1.2	0.29	1.0	4.99	1.42	5.00	100	18.33	96

Table. Characteristics of patients, doses, blood levels and transplant time

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P-86 MELD SCORE AND EARLY EXTUBATION IN THE INTENSIVE CARE UNIT AFTER LIVER TRANSPLANTATION: 20 YEARS EXPERIENCE IN A SINGLE CENTER IN PERU

Carmen Cerron[1], Rosa Lopez[2], Gino Salcedo[2], Bertha Cardenas[1], Carlos Rondon[1], Omar Mantilla[1], Jose Rivera[1], Alfonso Solar[1], Augudberto Montufar[1], Saul Espinoza[1], Martin Padilla P.[1,3]

[1] *Transplant Department, Guillermo Almenara National Hospital, Lima, Perú*
[2] *Intensive Care Unit, Guillermo Almenara National Hospital, Lima, Perú*
[3] *Department of Medicine, San Marcos National University, Lima, Perú*

Introduction: Liver transplantation (LTx) is an effective therapy and is the only definitive treatment for acute and chronic liver diseases in selected patients. Time on mechanical ventilation and early extubation after liver transplantation (LTx) influences in morbidity and mortality and is a prognostic factor for early complications after transplantation.

Objectives: To show the MELD score and the tracheal extubation time in the immediate postoperative period after liver transplantation.

Methods: Descriptive, retrospective study. The medical records of 209 adult liver transplant patients were reviewed, carried out from March 23, 2000 to November 30, 2020, treated in the Intensive Care Unit (ICU) by the Transplant team at the Guillermo Almenara National Hospital in Lima, Peru. Inclusion criteria: adults over 18 years old, exclusion criteria: under 18 years old, fast track in the operating room, double transplant, SPLIT, Domino technique.

Results: In 146 of 209 patients (69.9%) we performed successful tracheal extubation < 1 day: 31 patients (14.8%), 1-3 days, 26 patients (12.4%) 4-7 days, > 7 days:(0.47%). The MELD score did not have any impact in the time of tracheal extubation in ICU in the diferents groups In our study.

Conclusions: In our experience, 69.9% of the patients were successful extubated on the first day after liver transplantation. There were no differences between the tracheal extubation time and MELD score in our patients. There is a trend to reduce mechanical ventilation time after liver transplantation to facilitate early discharge from the ICU, reducing costs and optimizing resources. Our experience shows that early post-transplant extubation is safe, optimizing available resources.

Time on mechanical ventilation	Nro	%	MELD average (interval)
< 1 day	146	69.9	21 (10 - 41)
1 - 3 days	31	14.8	20 (10 - 40)
3 - 7 days	26	12.4	22.2 (13 - 31)
>7 days	6	2.9	24.3 (15 - 40)

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P-87 HIGH PREVALENCE OF SARS-COV-2 ANTIBODIES IN PREGNANT WOMEN INFECTED WITH VIRAL HEPATITIS IN BRAZIL

Alanna Calheiros Santos, Vanessa Salete de Paula, Juliana Custódio Miguel, Elisangela Ferreira da Silva, Laura Cristina Machado Pinto, Lia Laura Lewis-Ximenez, Livia Melo Villar

Viral Hepatitis Laboratory, Oswaldo Cruz Foundation, Rio de Janeiro, Brazil

Introduction: Pregnant women are considered more vulnerable to viral infections, such as severe viral respiratory infections and viral hepatitis. Data about Brazilian pregnant and postpartum women found a case fatality rate of 12.7% among COVID-19 Acute Respiratory Distress Syndrome cases (ARDS). Studies in pregnant women found prevalences of antibodies (Ab) against SARS CoV-2 between 4 to 14% in Europe and North America. However, there is no data about the prevalence of SARS CoV-2 Ab among Brazilian pregnant women with viral hepatitis.

Objectives: The objective of this study was to assess the prevalence of SARS CoV-2 antibodies in pregnant women infected with hepatitis B or C.

Methods: A total of 31 pregnant women (21 HBV and 10 HCV) were recruited in Rio de Janeiro (Brazil) from January 7, 2020 to January 11, 2021. The study protocol was approved by the Brazilian National research ethics committee. Serum samples were collected and tested for total antibody (Ab) and IgM Abs specific for SARS-CoV-2 using electrochemiluminescence assay (Elecsys Anti-SARS-CoV-2, Roche).

Results: Pregnant women were at first (n=12), second (n=10) and third trimester of gestation (n=9). None of them had diabetic or are living with HIV, while three women presented arterial hypertension. Mean age was 30.6± 7.26 years old, 90.3% were black and 38.7% had up 8 years of education. Total anti-SARS-CoV-2 prevalence was 19.3% (6/31). Most of pregnant women were at first trimester of gestation, aged less than 35 years of old, and were black race. However, none of these variables were statistical associated to anti-SARS CoV-2 antibody positivity (table 1).

Conclusions: This is the first report of SARS CoV-2 seroprevalence in pregnant women infected with viral hepatitis, where seroprevalence appears to be greater than that observed in pregnant women without liver disease in the same period.

Table 1. Characteristics of pregnant women infected with viral hepatitis according to the anti-SARS Cov-2 testing.

	Anti-SARS CoV-2			
	Positive (n=6) n/N (%)	Negative (n=25) n/N (%)	Total N = 31	*p*-value
Maternal Age				
<35 years	4/6 (66.7%)	16/25 (64%)	20	1.000
≥ 35 years	2/6 (33.3%)	9/25 (36%)	11	
Gestational Trimester				
First	3/6 (50%)	9/25 (36%)	12	0.65
Second	1/6 (16.7)	9/25 (36%)	10	
Third	2/6 (33.3%)	7/25 (28%)	9	
Race				
Black	6/6 (100%)	22/25 (88%)	28	1.000
Caucasian and others	0/6 (0%)	3/25 (12%)	3	
Scholarity				
Up to Elementary School	3/6 (50%)	9/25 (36%)	12	0.66
Secondary School and higher	3/6 (50%)	14/25 (56%)	17	
No information	0/6 (0%)	2/25 (8%)	2	

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P-88 EVALUATION OF STEATOSIS AND LIVER FIBROSIS IN PATIENTS WITH PSORIASIS: THE IMPACT OF METHOTREXATE AND METABOLIC FACTORS ON THE SEVERITY OF THE DISEASE

Luciana Agoglia[1,2,3], Ana Carolina Cardoso[1], Nathalie Leite C.[1], Maria Chiara Chindamo[1], Cristiane A. Villela-Nogueira[1]

[1] *Hepatology Unit, Hospital Universitário Clementino Fraga Filho, Federal University of Rio de Janeiro*
[2] *Gastroenterology Unit, Hospital Universitário Antônio Pedro, Federal University Fluminense*
[3] *Department of Internal Medicine, Federal Hospital of Bonsucesso*

Introduction: Methotrexate (MTX) is a crucial treatment drug in Psoriasis. Its impact on the development of liver fibrosis has been questioned since a high prevalence of non-alcoholic fatty liver disease has been described in this disease.

Objective: To assess, in Psoriasis patients, the associated factors for liver steatosis and advanced fibrosis diagnosed by transient hepatic elastography (THE).

Methodology: This was a cross-sectional study in Psoriasis patients. Chronic liver diseases, use of steatogenic drugs (except MTX), and alcohol intake >20–30 g/day (women/men) were excluded. Demographic, anthropometric, clinical, and laboratory data were registered as well as time since psoriasis onset and cumulative MTX doses. THE cutoff points ≥7.9KPa (probe M) and ≥7.2KPa (probe XL) were considered for the diagnosis of advanced liver fibrosis and CAP values ≥248 dB/m for the diagnosis of steatosis. Logistic regression analysis was performed, and the significance level was 0.05.

Results: 141 patients were included (42.6% male, 53.7±12.4 years old, body mass index [BMI] 29.3±5.9 kg/m2). The prevalence of Diabetes Mellitus (DM), Metabolic Syndrome, Systemic Arterial Hypertension (SAH), and dyslipidemia was 28.4%, 55.3%, 57.4% and 73.7%, respectively. Overall, 67.4% had steatosis by CAP and 16.3% had advanced fibrosis by THE. Median time since psoriasis onset was 121.1 months (69.5-234.1). MTX cumulative dose ≥1000mg was found in 47.8% (median 2212.5mg [1360-3213.70]). In the regression analysis, BMI (OR 1.25 95% CI 1.12-1.38; p<0.001) and triglyceride

levels (OR 1.01 95% CI 1.01-1.02; p=0.002) were the only variables independently associated with steatosis. DM (OR 4.8 95% CI 1.6-14.3; p=0.005) and SAH (OR 11.6 95% CI 2.2-61.1; p=0.004) were associated with advanced fibrosis.

Conclusion: On a cohort of patients with Psoriasis, metabolic variables were the main factors related to liver steatosis and fibrosis. There was no association between cumulative MTX dose or disease duration and liver steatosis or fibrosis in this population.

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P-89 ASSESSMENT OF HEPATIC FIBROSIS IN TYPE 2 DIABETIC PATIENTS: A CROSS SECTIONAL ANALYSIS

Mincis Rodrigo[1], Altikes Renato Gama[1], Vanni Denise Siqueira[1], Rossi Da Maria Elizabeth[2], Zitteli Patrícia Momoyo[1], Carrilho Flair José[1], P. Oliveira Claudia[1], Pessoa Mario Guimarães[1]

[1] *Division of Gastroenterology and Hepatology, Hospital das Clinicas, University of São Paulo School of Medicine*
[2] *Department of Endocrinology, Hospital das Clinicas, University of São Paulo School of Medicine*

Introduction: Metabolic dysfunction associated fatty liver disease (MAFLD) was suggested recently as a more appropriate nomenclature to describe the liver disease associated with known metabolic dysfunction .Type 2 Diabetes is a risk factor for MAFLD, steatohepatitis and patients are at increased risk to developing liver fibrosis and need to be more investigated.

Aim: To investigate which MAFLD patients with type 2 diabetes have higher risk for advanced fibrosis.

Methods: Patients in diabetes clinic, without known hepatic diseases and without significant alcohol intake (< 21 drinks per week), were voluntarily selected to perform liver ultrasound, liver stiffness and CAP measurements using Fibroscan (Echosens, Paris, France) and serological tests for B and C hepatitis to exclude viral causes of liver disease. Subjects were submitted to a complete clinical examination and laboratory tests.

Results: 90 patients were included in this cross-sectional analysis. Overall, 12,2% (11 patients) had advanced fibrosis (liver stiffness > 8,7 Kpa) and 23% (21 patients) had severe steatosis (Grade 3 steatosis; CAP> 290 db/m) based on transient elastography. Factors associated with significant fibrosis were age over 60 years old, alanine amino transferase (ALT) elevation, low HDL (lower than 40), triglycerides elevation, higher BMI and severe steatosis.

Conclusion: Prevalence of advanced fibrosis and severe steatosis in patients with type 2 diabetes and MAFLD is very high (12,2% and 23% respectively), what makes screening of these high-risk patients very important. Risk factors such as elevated glycated hemoglobin, higher BMI, triglycerides, ALT and CAP measurements on Fibroscan and low HDL indices are considered to be associated to advanced liver fibrosis.

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P-91 PREVALENCE OF HEPATITIS C VIRUS INFECTION DETECTED BY RAPID TEST IN A HIGH-RISK POPULATION

Pedro Montes Teves[1], Briny Rodriguez Vargas[1], Jaime Bustamante Flores[1], Eduardo Monge Salgado[1]

[1] *Hospital Nacional Daniel Alcides Carrión – Callao*

Introduction: Hepatitis C virus testing is recommended in selected populations based on demography, prior exposures, high-risk behaviors, and medical conditions. In Perú, screening usually is based on anti-HCV detection using enzyme immunoassays (EIA), but rapid diagnostic tests are an attractive alternative to facilitate screening.

Aim: To determine the prevalence of Hepatitis C infection diagnosed by a rapid antibody detection test in a high-risk population.

Methods: A Cross-sectional descriptive study. Patients attending the G-I unit of the Daniel A. Carrión National Hospital - Callao- Peru who had risk factors for HCV infection in the period September-November 2018 were included, after informed consent, a HCV Hepa-Scan antibody detection rapid test (Bhat Bio-tech India) was performed.

Results: Ninety two patients were included, 56.5% were men and 43.5% women, age average was 52.02 +/- 17.53 years old. The risk factors identified in this population were: past history of major surgery: 35 (38%), Tattoos 28 (30.4%), transfusion 17 (18.5%), drug use 8 (8.7%), healthcare worker 5 (5.4%), inmates 4 (4.3%), HIV infection 2 (2.2%), hemodialysis 1 (1.1%), high risk sexual behavior 1 (1.1%). Twenty nine patients (31.5%) had hypertransaminasemia. One case of Hepatitis C infection (1.1%) was detected, confirmed with serological test and RNA HCV viral load; the risk factor was past history of major surgery.

Conclusion: The prevalence of HCV infection detected by rapid antibody test in a population with risk factors was 1.1%.

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P-93 PREVALENCE OF HEPATITIS E VIRUS IN DIFFERENT GROUPS OF PATIENTS IN SALVADOR, BA, BRAZIL

G. Lopes[1,5], C. Correia[2], D. Almeida[3], S. Cunha[4], S. Pacheco[4], V. Nunes[4], J. Cotinguiba[4], D. Lima[2], M.S. Campos[1], R. Paraná[4], M.I. Schinoni[4]

[1] *Universidade Federal da Bahia Curso de Pós-graduação*
[2] *Universidade Federal da Bahia Curso de Graduação*
[3] *CEDAP, Secretaria de Saúde de Salvador*
[4] *Hospital Universitário Professor Edgard Santos, Universidade Federal da Bahia*
[5] *Instituto de Ciências da Saúde, Universidade Federal da Bahia*

Introduction: Few studies have been published to assess the prevalence of HEV in our country.

Objective: To determine the prevalence of HEV in patients with hepatitis C virus (HCV), hepatitis B virus (HBV), autoimmune hepatitis (HAI) and in patients with drug-induced liver injury (DILI).

Materials and Methods: This is a cross-sectional study. A total of 300 volunteers were recruited at the Magalhães Neto Ambulatory, HUPES. Detection of anti-HEV antibodies was determined using the Mikrogen® ELISA (RecomWell anti-HEV IgG, Mikrogen®, Germany). Descriptive statistics was used.

Results: 46% (138/300) had HBV, 35.3% (106/300) HCV, 12.3% (37/300) HAI and 6.3% (19/300). The prevalence of anti-HEV IgG was 12.43%, after stratification of patient groups we observed a prevalence of anti-HEV IgG of 13.7% in patients with HCV, 12.9% of HBV, 6.7% of HAI and 21%. The means of TGO and TGP among patients VHE negative were 60.5 and 65.7 IU / mL, respectively, while the mean among those seropositive for HEV were 75.8 and 104.9 IU / mL, respectively, demonstrating an increase in the levels of TGO and TGP among HEV positive people. The mean TGP among DILI patients was 993.3 IU / mL and TGO was 641.4 IU / mL. Fibrosis staging among

seropositive individuals was F1 in 21.7%, F2 in 42.2%, F3 in 27.2 and F4 8.9.

Conclusions: In this sample, there was a higher prevalence of HEV among patients with DILI but the number is small, the levels of TGO and TGP were higher and fibrosis was more accentuated among patients with hepatitis E. This data suggest that infection with HEV may cause a worsening in the clinical condition of patients.

Keywords: Hepatitis E, Hepatitis B, Hepatitis C, DILLI, HAI

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P-94 METABOLIC SYNDROME IN PATIENTS WITH CHRONIC HEPATITIS C

G.B.L. Menezes[1], C. Correia[2], M.I. Schinoni[3]

[1] *Universidade Federal da Bahia Curso de Pós-graduação*
[2] *Universidade Federal da Bahia Curso de Graduação*
[3] *Hospital Universitário Professor Edgard Santos, Universidade Federal da Bahia and Instituto de Ciências da Saúde, Universidade Federal da Bahia*

Introduction: The interaction between hepatitis C and metabolic syndrome (MS) is widely discussed in the literature.

Objective: To study the prevalence of MS in individuals with chronic hepatitis C and the associated clinical factors.

Methodology: This is a cross-sectional study. The study included 334 individuals with chronic hepatitis C, in which anthropometric variables, blood pressure and results of laboratory tests were analyzed.

Result: The prevalence of MS in patients with hepatitis C was 2.4% (8/334). The mean values of ALT were 90.1 ± 65.8; AST of 76.3 ± 70.4; and GGT of 130.2 ± 160, among those with HCV infection without MS. Among individuals with MS, ALT was 122.3 ± 82.3, AST was 76.7 ± 29.5, GGT was 102.3 ± 55.2. The steatosis found was 49.7% (166/334), while among individuals with MS, a frequency of 62.5% (5/8) was observed. F1 was 23.8% in HCV patients and, in SM, it was 12.5%; F2 48.5% and 37.5%, F3 22% and 37.5% and F4 5.7% and 12.5%. In individuals with hepatitis C and MS, systemic arterial hypertension was observed in 87.5% of cases, diabetes in 75%, dyslipidemia in 62.5% and obesity.

Conclusion: MS had a low prevalence in HCV patients, and was associated, with a higher frequency of steatosis, greater inflammatory activity and more advanced liver fibrosis.

Keywords: Hepatitis C, Metabolic Syndrome and HCV

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P-95 HEPATOXICITY FOR DRUGS AND HERBAL PRODUCTS IN INPATIENTS FROM A UNIVERSITY HOSPITAL, BRAZIL

Barbosa Mariana Paranhos[1], Nunes Vinicius[1,2], Santos Genário[2], Paraná Raymundo[1,2], Schinoni Maria Isabel[2]

[1] *Faculdade de Medicina da Bahia, Universidade Federal da Bahia, Salvador, Brazil*
[2] *Gastroenterology Service, Professor Edgard Santos University Hospital, Salvador, Brazil Institute of Health Sciences, UFBA*

Introduction: Drug induce liver injury (DILI) and Herbal Induce Liver Injrury (HILI) are a frequent complaint in clinical practice. These are manifested with alterations at the liver profile, and most of the time these are underdiagnosed.

Aims: To study the prevalence and clinic presentation of DILI/ HILI in 5 clinical inpatient rooms at a University Hospital.

Methods: Prospective cohort study with patients admitted between July and October 2020, in 5 inpatient rooms of the University Hospital of Bahia. RUCAM causality score was used to determine DILI/HILI, tests were performed to rule out another etiologies and to confirm DILI

Results: Total sample of 400 patients hospitalized for various causes, DILI/HILI was diagnosed in 10 patients: 2.5% of all the sample. Etiology: 90 % allopathic drugs: Clopromazine, Cephalexin, Mesalazine, Etrolizumab, Azatriopine associated with Hydrochloroquine, Tretinoin with Variconazole, Phenytoin, and RIPE (Rifampicin, Isoniazid, Pyrazinamide and Ethambutol). Natural products were 10 %: Peumus boldus. Clinical symptoms: 100 % had jaundice; 50 % nausea; 25 % choluria; 25 % fecal acholia; 25 % vomiting; 25 % pruritus; 25 % insomnia; 25 % asthenia; 25 % arthralgia and 25 % eosinophilia. The mean time to resolution of symptoms was 18.5 days; the mean ALT level was 262.6; AST was 216.8 and AF was 1287, without severe cases.

Conclusions: The prevalence of DILI/ HDS in the inpatients was 2.5%, considered high, demonstrating the importance of the active search of these cases for its diagnosis.

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P-97 COLOMBIAN EXPERIENCE IN THE MANAGEMENT OF PATIENTS WITH SARS-CoV-2 INFECTION AND LIVER TRANSPLANTATION

Andres Gomez Aldana[1,2], Monica Tapias[1], Jose De la Hoz[3], Juanita Leon[1], Katherine Marrugo[1], Jannet Lopez[1], Alvaro Lozada[1], Diego Roselli[4]

[1] *Department of Internal Medicine, Fundacion Santa Fe de Bogotá, Bogotá Colombia*
[2] *Universidad de los Andes, Bogotá, Colombia*
[3] *Research Unit, Fundacion Santa Fe de Bogotá, Bogotá Colombia*
[4] *Department of Epidemiology and Biostatistics, Pontificia Universidad Javeriana, Bogotá, Colombia*

Introduction: Many authors have highlighted the management and outcomes of liver transplant patients with SARS -CoV2, however, there is a reduced experience identified with Hispanic or Latino patients [1]. We would like to share our experience with liver transplantation and SARS-CoV-2 infection (Real-time PCR identification) during 2020.

Objectives: Describe the main infectious complications identified in patients with SARS-CoV2 and liver transplantation.

Identify mortality rate among this group of patients and answer to therapies provided during their stay at the Hospital.

Compare the mortality rate with other studies without Latin patients or with a reduced presence of them.

Methods: This is an observational descriptive study carried out from May to August 2020

Results: 14 Hispanic patients were admitted to our institution (mean age 64 years; range: 57-76). Nine patients required hospitalization, and four patients were admitted to the intensive care unit (ICU). The most frequent risk factors were a history of arterial hypertension (n=8) and chronic kidney disease (n=6). The immunosuppression of these patients was based on antimetabolites (n = 9), calcineurin (n = 8), prednisolone (n = 4) and everolimus (n = 3). The onset of symptoms was six days approximately.

All ICU patients receiving mechanical ventilation and renal replacement therapy for stage 3 acute renal failures. However, bacteremia

caused by *E. Coli*, *Citrobacter spp.*, and *Staphylococcus aureus* was present in three patients, an outcome that was not identified in the study population. The mortality rate was 28.5%. The mortality rate was higher than Webb *et al* 1 (18%) and other studies where rates were reported from 12% to 18%, and where the white population was predominant.

The therapy provided in our institution was focused on tapering the immunosuppressive therapy attached with the use of dexamethasone. This treatment was given to six patients [4].

Conclusion: Our rate of mortality was higher compared with other similar studies. However, further future studies should include outcomes in the Hispanic population due to the social factors in addition to genetic factors that could be involved in higher mortality in ICU. Also, taking into account the increase in the number of cases, the follow-up of patients with liver diseases by telephone contact with transplant centers should be considered.

Uncited references: [2,3,5]

References

[1] Webb GJ, Marjot T, Cook JA, et al. Outcomes following SARS-CoV-2 infection in liver transplant recipients: an international registry study [published online ahead of print, 2020 Aug 28]. Lancet Gastroenterol Hepatol 2020;5 S2468-1253 (20) 30271-5.

[2] Colmenero J, Rodríguez-Perálvarez M, Salcedo M, et al. Epidemiological pattern, incidence and outcomes of COVID-19 in liver transplant patients [published online ahead of print, 2020 Aug 1]. J Hepatol 2020 S0168-8278(20)30521-3. https://doi.org/10.1016/j.jhep.2020.07.040.

[3] Becchetti C, Zambelli MF, Pasulo L, et al. COVID-19 in an international European liver transplant recipient cohort. Gut 2020;69(10):1832–40. https://doi.org/10.1136/gutjnl-2020-321923.

[4] Fix OK, Hameed B, Fontana RJ, et al. Clinical Best Practice Advice for Hepatology and Liver Transplant Providers During the COVID-19 Pandemic: AASLD Expert Panel Consensus Statement. Hepatology 2020;72(1):287–304.

[5] Pereira MR, Mohan S, Cohen DJ, Husain SA, Dube GK, Ratner LE, Arcasoy S, Aversa MM, Benvenuto LJ, Dadhania DM, Kapur S, Dove LM, Brown Jr RS, Rosenblatt RE, Samstein B, Uriel N, Farr MA, Satlin M, Small CB, Walsh TJ, Kodiyanplakkal RP, Miko BA, Aaron JG, Tsapepas DS, Emond JC, Verna EC. COVID-19 in solid organ transplant recipients: Initial report from the US epicenter. Am J Transplant 2020 Jul;20(7):1800–8.

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P-98 BIOCHEMICAL MAKERS AMONG CHRONIC LIVER DISEASE PATIENTS ACCORDING COVID-19 INFECTION: A FOLLOW-UP STUDY

Lucas Lima da Silva[1], Alanna Calheiros Santos[1], Fabiola Justina Fumero Leon[2], Vanessa Duarte da Costa[1], Juliana Custódio Miguel[1], Julia Trece Marques[1], Giselle Prado do Nascimento[1], Elisangela Ferreira da Silva[1], Lia Laura Lewis-Ximenez[1], Vanessa Salete de Paula[2], Livia Melo Villar[1]

[1] *Viral Hepatitis Laboratory, Oswaldo Cruz Foundation, Rio de Janeiro, Brazil*
[2] *Molecular Virology Laboratory, Oswaldo Cruz Foundation, Rio de Janeiro, Brazil*

Introduction: Coronavirus disease 2019 (COVID-19), caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has spread rapidly around the world, posing a major threat to human health and the economy. Chronic Liver disease (CLD) patients could be at high risk for COVID-19. At this moment, there is little data about biochemical variation according to liver disease along to COVID-19 infection.

Objectives: This study aims to report the levels of biochemical markers in CLD patients with or without COVID-19 to give more information that could help clinical monitoring.

Methods: A total of 66 CLD patients were included in this study during year of 2020. Study was approved by Brazilian Ethics Committee. Blood and respiratory samples were collected after signed informed consent. At baseline and during follow-up, all subjects included in this study underwent routine examination, monitoring of biochemical markers, and SARS-CoV-2 nucleic acid testing with a median follow-up interval of 15 days.

Results: Most of individuals were male 56% (37/66) and mean age of population was 49±17 years. Six out 66 CLD patients were SARS CoV-2 RNA positive at baseline. At the end of follow-up, all these 6 patients achieved SARS-CoV-2 clearance. At least once during follow-up, the CLD group versus CLD/COVID-19 group, 50% (30/60) vs. 33% (2/6) had abnormal alanine aminotransferase; 47% (28/60) vs. 17% (1/6) had abnormal aspartate aminotransferase; 60% (36/60) vs. 67% (4/6) had abnormal γ-glutamyltransferase, 32% CLD patients (19/60) had abnormal total bilirubin levels vs. none of the CLD/COVID-19 group.

Conclusions: Previous liver disease did not seem to increase the biochemical levels, except GGT, during COVID-19 infection. However, liver function monitoring is still essential for both COVID-19 patients with and without liver disease.

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P-99 PREVALENCE OF SARCOPENIA IN PATIENTS WITH LIVER CIRRHOSIS. A CROSS-SECTIONAL STUDY AT TEODORO MALDONADO CARBO HOSPITAL

Zoila Teran[1], Denisse Marriott[2], Sammy Yepez[3], Emilia Vera[4], Eduardo Marriott[5]

[1] *Teodoro Maldonado Carbo Hospital (HTMC). Gastroenterology Department, Guayaquil, Ecuador, Universidad de Guayaquil, Guayaquil, Ecuador*
[2] *Universidad de Especialidades Espíritu Santo (UEES), Guayaquil, Ecuador*
[3] *Teodoro Maldonado Cabro Hospital, Gastroenterology Department, Guayaquil, Ecuador, Universidad de Guayaquil, Ecuador*
[4] *Teodoro Maldonado Carbo Hospital, Hepatology Department, Guayaquil, Ecuador. Universidad de Guayaquil, Guayaquil, Ecuador*
[5] *Teodoro Maldonado Carbo Hospital (HTMC). Hepatology Department, Guayaquil, Ecuador, Universidad de Guayaquil, Guayaquil, Ecuador. Universidad de Especialidades Espíritu Santo (UEES), Guayaquil, Ecuador*

Introduction: Sarcopenia (S) in liver cirrhosis (LC) is associated with an increased in morbi-mortality. Therefore, identifying it is an important prognostic parameter in the diagnosis of this groups of patients.

Objective: Determine the prevalence of Sarcopenia in patients with Liver Cirrhosis.

Method: Observational, analytical, cross-sectional study.

HTMC AS400 system was performed in a population of 300 patients with LC who attended in the period 2015-2018. One hundred of them met inclusion criteria: **(1)** LC of any etiology; **(2)** ≥18 years and **(3)** with an Abdominal CT Scan with transverse section at L3 level. Patients with LC who had other associated serious and/or malignant pathologies were excluded.

To evaluate Sarcopenia, we used the program NIH IMAGEJ that determines the muscle mass index in Hounsfield Units, with cut-off point for: Men ≤ 52.4 cm^2/m^2 and Women ≤38.5 cm^2/m^2. Results were evaluated using chi-square and Mann-Whitney U (v.3.6.0 Foundation for Statistical Computing; Vienna, Austria).

Results: Baseline characteristics.

Conclusion: Sarcopenia was present in 66% of patients with Liver Cirrhosis. It was significantly predominant in the male gender, but there were no statistical differences with respect to etiology.

Variables	Total *n*=100 (%)	Sarcopenia *n*= 66 (%)	No sarcopenia *n*=34 (%)	p-value
Age (years), mean ± Std	62.6 ± 10.9	64.5 ± 10.6	59.5 ± 10.9	
G.1:(18-39)	3 (3%)	2 (3.0%)	1 (2.9)	NI
G.2 (40-64)	55 (55%)	31 (46.0)	24 (70.5)	NI
G.3 (≥65)*	42 (42%)	33 (50.0)	9 (26.40)	**0.0170***
Gender (male), n (%)	53 (53 %)	41 (65 %) *	12 (32 %)	**0.0032***
Etiology, n (%)				0
NASH	76 (76.0)	51 (77.2%)	25 (73.5%)	NI
Alcohol	16 (16.0)	11 (16.6%)	5 (14.7%)	NI
HBV/HCV	4 (4.0)	3 (4.5%)	1(2.9%)	NI
Hemochromatosis	1 (1.0)	1 (1.5%)	-	NI
Autoimmune	1 (1.0)	-	1 (2.9%)	NI
Cryptogenic	2 (2.0)	-	2 (2.8%)	NI

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P-101 IMPACT OF COMPLETE AND PREVENTIVE LOCKED−DOWN BEFORE COVID 19 OUTBREAK IN ORGAN PROCUREMENT AND SOLID TRANSPLANTATION IN ARGENTINA: THE WORST HAS NOT YET ARRIVED.

Josefina Pages[1,*], *Federico Piñero*[1,2,*], *Margarita Anders*[2,3,*], *Marcos Thompson*[1], *Ariel Gonzalez Campaña*[1,4], *Manuel Mendizabal*[1,2], *Martín Fauda*[1,4], *Florencia Antinucci*[3], *Federico Orozco Ganem*[3], *Nadia Grigera*[3], *Lucas McCormack*[3,5], *Gustavo Podesta*[1,4], *Marcelo Silva*[1,2]

[1] *Hepatology and Liver Transplant Unit, Hospital Universitario Austral, Buenos Aires, Argentina*
[2] *Latin American Liver Research Educational and Awareness Network (LALREAN), Buenos Aires, Argentina*
[3] *Department of Hepatology and Liver Transplantation, Hospital Aleman, Buenos Aires, Argentina*
[4] *Department of Surgery and Hepatobiliary Surgery, Hospital Universitario Austral, Buenos Aires, Argentina*
[5] *Department of Surgery and Hepatobiliary Surgery, Hospital Aleman, Buenos Aires, Argentina*

Introduction: Early preventive strict quarantine due to COVID-19 pandemic was implemented in Argentina since March 20th, 2020. Transplant societies and organ procurement organizations were challenged to face this complex scenario and sustain organ donation and transplantation activity.

Objectives: We evaluated the impact of complete and preventive *lockdown* in organ procurement and transplantation before the COVID-19 peak onset.

Materials and Methods: We analyzed prospectively collected data from the National Report Agency (INCUCAI). By constructing time series, we compared donation and transplant rates from the years 2010 to 2020, during a same monthly-period between March 3rd and July 20th. We evaluated the effect of preventive *lockdown* before the peak of COVID-19 curve. Donation rates per million population in these months were also registered for each year. Transplant accessibility was calculated, dividing the total number of transplants and the total number of listed patients.

Results: The preventive *lockdown* was associated with a 34.5% relative reduction (95% CI 26.9-43.2) in organ procurement when compared to 2010-2019 and significantly reduced comparing 2019 [53.3% (CI 44.6-61.6)]. This scenario was even worse in Buenos Aires city and its surroundings, the region most affected by COVID-19. During this period, donation per million population rates decreased from 7.8 in 2019 to 3.3 in 2020. This reduction was even higher in the number of deceased and living donor transplants performed comparing 2019 vs. 2020, with a relative reduction of 62.0% (CI 30.8-89.1) and 68.8% (CI 65.7-71.7), respectively.

Conclusions: During this short observation period of 120 days of preventive quarantine, not yet having reached the "peak" incidence of COVID-19, a marked reduction in procurement and transplantation rates were observed. Although waiting list mortality was not significantly modified, transplant access has been significantly reduced, showing a future negative trend on waitlist mortality.

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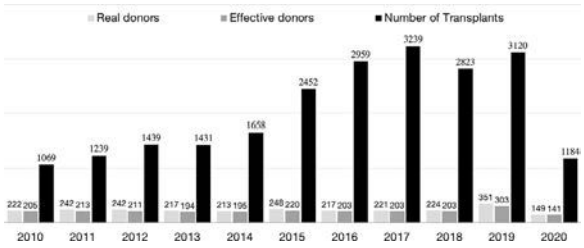

Figure 1: Organ procurement and transplant numbers for years 2010 to 2020.

P-102 EVEROLIMUS IN RENAL DYSFUNCTION IN LIVER TRANSPLANTATION

Carolina Salinas[1], Katherine Marrugo[3], Martin Garzón[1], Leonardo Perez[3,4], Oscar Beltran[1], Geovanny Hernandez[1], Islena Blanco[2], Jairo Rivera[2], Adriana Varon[5], Gilberto Mejia[2]

[1] *Gastroenterology and Hepatology Service*
[2] *Liver Transplant Service*
[3] *Gastroenterology Fellow*
[4] *Epidemiologist and Gastroenterologist*
[5] *Fundacion Cardioinfantil -IC, Universidad del Rosario, Bogota Colombia*

Introduction: Post-transplant renal dysfunction (RD) in Liver transplantation occurs 18% at 5 years, mainly due to calcineurin inhibitors (13 to 33%). Nephroprotective strategies include minimization and / or suspension of CNI or conversion to mTOR (everolimus).

Objectives: To evaluate the experience with everolimus in a liver transplant center in Colombia in post-transplant RD.

Methods: A retrospective study of liver transplant recipients was performed between 2013 and 2020 with conversion to everolimus due to RD assessed by creatinine and eGFR (MDRD4). The renal function evolution was evaluated at 6 and 12 months after conversion. The frequency of biopsy - proven acute rejection (BPAR) was determined. The adverse events associated with everolimus were documented.

Results: 301 transplants were performed between January 2013 and June 2020, 66 patients (21.9%) presented RD and required conversion to everolimus, 75% despite minimization of immunosuppression with CNI. Average age of 64 +/- 11.4 years and 54.5% men. 83.3% were in CHILD B and C, MELD score 17 at transplantation. 9 (13%) had hypertension, dyslipidemia 13 (19%) and Diabetes Mellitus 19 (28%). 11 patients (16%) had pretransplantation hepatorenal syndrome. The etiology was cryptogenic cirrhosis and NASH in 30%, hepatitis C 25% and autoimmunity 16%. Basiliximab induction 10.6%. At the time of conversion,

* Shared first authorship

creatinine was 1.5 +/- 0.44mg / dl, eGFR 47.7 +/- 18. At 6 months the creatinine was 1.27 +/- 0.2mg / dl and eGFR 58.4 +/- 14.5 maintaining the same clearance at 12 months without achieving additional recovery of glomerular filtration. There were 7 acute rejection episodes during conversion (10.6%), suspension of everolimus in 22% due to adverse events, mainly proteinuria. Postconversion dyslipidemia was 30%.

Conclusion: Everolimus conversion in renal dysfunction is a strategy that allows stabilizing renal function and improving glomerular filtration in post-liver transplant patients, without a significant increase in BPAR or adverse events.

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P-103 CLINICAL AND EPIDEMIOLOGICAL CHARACTERISTICS OF HEPATOCELLULAR CARCINOMA ANALYSIS OF A TERTIARY REFERRAL CENTER IN BRAZIL

M.K. Yuami[1], A.M.F. Andrade[1], R. Teixeira[1], C.R.D. Carmo[1], L.Q. Santos[1], J.F. Castro[1], C.X. Lima[1]

[1] *Department of Gastroenterology and Hepatology, Felício Rocho Hospital, Belo Horizonte, Brazil*

Background: In Brazil, hepatocellular carcinoma (HCC) is the sixth leading cause of cancer-related deaths and the incidence is increasing worldwide. Several modifiable and non-modifiable HCC risk factors have been described. However, clinical and epidemiological aspects of HCC are still underreported in Brazil.

Objectives: To investigate the main characteristics of patients with HCC at one Brazilian tertiary care center.

Methods: Retrospective analysis of patients diagnosed with HCC in the last 3 years. Epidemiological, clinical, tumor characteristics, staging and type of treatment were reviewed.

Results: 70 patients were included. There was a predominance in males (78%) and mean age was 65,6 (± 12,2) years. 60 (90%) patients were cirrhotic. Etiologies of liver cirrhosis were: alcohol abuse (31%), hepatitis C infection (22%), followed by cryptogenic (17%), nonalcoholic fatty liver disease (14%) and hepatitis B infection (11%). 38 (54%) cirrhotic patients were Child-Pugh A, 42 (60%) harbored a single tumor at diagnosis and 37 (52%) had normal alpha-fetoprotein. 38 (51%) were classified as Barcelona Clinic Liver Cancer (BCLC) stage 0 or A, 12 BCLC B (17%) and 22 BCLC C or D (31%). 34 (48%) patients were diagnosed at a non-curative stage. Chemoembolization and radiofrequency ablation were the main procedures performed in 20 (28%) and 15 (21%), respectively. 10 (14%) were transplanted. The mortality during the period analyzed was 27%.

Conclusions: Alcohol abuse and hepatitis C infection were the leading causes of chronic liver disease associated with HCC. Approximately 50% of patients were classified as very early or early stage, which are potentially curable. These results highlight the need to increase early diagnosis and policies focused on changing risk factors for better outcomes.

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P-104 IMPACT OF BACTERIAL INFECTIONS IN THE CLINICAL COURSE OF CIRRHOTIC PATIENTS ADMITTED TO THE INTENSIVE CARE UNIT

Rac D'Oliveira[1], L. Codes[1], C.C. Zollinger[1], M.S. Rocha[2], P.L. Bittencourt[1]

[1] *Unit of Gastroenterology and Hepatology of the Portuguese Hospital of Salvador, Bahia, Brazil*
[2] *School of Medicine and Public Health of Bahia, Salvador, Bahia, Brazil*

Introduction: Bacterial infections (BI) occur in 43%-59% of cirrhotic patients (CP) admitted to intensive care units (ICU) and are associated with higher morbidity, mortality, and frequency of multidrug-resistant (MDR) and extensively drug-resistant (XDR) bacteria.

Objectives: To describe the characteristics of community-acquired (CA), healthcare-associated (HCA) and hospital-acquired (HA) infections in CP admitted to the ICU; to assess the frequency of acute kidney injury (AKI), hepatorenal syndrome (HRS), acute-on-chronic liver failure (ACLF), sepsis and mortality in CP with BI; and to evaluate the variables predictive of hospital mortality.

Methods: Retrospective assessment of all infection episodes occurred in CP admitted in an ICU between January 2012 and June 2018. BI were categorized as CA, HCA and HA. Characteristics of infections and their impact on hospital morbidity and mortality were evaluated.

Results: 374 BI were observed in 285 hospitalizations (203 patients,147 males, 67±11 years, Child-Pugh 11±2 and MELD 23±8). Infections were classified as CA (n = 81, 29%), HA (n = 129, 45%) and HA (n = 75, 26%). Gram-negative bacteria occurred in 73% of the isolates, mainly Klebsiella pneumoniae (31%). Spontaneous bacterial peritonitis (32%) was the most common infection. MDR and XDR bacteria occurred in 35% and 16% of hospitalizations. HCA and HA had a higher frequency of MDR bacteria (31% and 41% respectively vs. 20% in CA, p <0,05) and XDR (19% and 17% respectively vs. 6% in CA, p=0,20). The frequency of sepsis was superior in HA in relation to CA (59 vs. 27% and 16%, respectively, p <0.01). The mortality was superior in HA (52% vs. 25% in HCA and 19% in CA, p <0.001). HA (OR 3.48) and HCA (OR 2.25) were independent variables associated with hospital mortality.

Conclusions: Knowing the local epidemiology of BI is important because of the impact on the morbidity and mortality of CP. HCA and HA had a higher frequency of MDR and XDR bacteria and death.

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P-105 PREVALENCE OF ANTIMITOCHONDRIAL ANTIBODIES IN PATIENTS WITH PRIMARY BILE CHOLANGITIS AND ITS OUTCOME IN LIVER TRANSPLANTATION

Andres Gomez Aldana[1,2], Monica Tapias[1], Jose De la Hoz[3], Juanita Leon[1], Jannet Lopez[1], Alvaro Lozada[1]

[1] *Department of Internal Medicine, Fundacion Santa Fe de Bogotá, Bogotá Colombia*
[2] *Universidad de los Andes, Bogotá, Colombia*
[3] *Research Unit, Fundacion Santa Fe de Bogotá, Bogotá Colombia*

Introduction: The presence of antimitochondrial antibodies has been described as a diagnostic criterion for primary biliary cholangitis. However, no studies have been established in the South American population to describe the prevalence of these antibodies in patients with biliary cholangitis. Furthermore, it would be important to assess the prevalence and identify whether the presence of these antibodies influences the recurrence of the disease.

Objectives: To describe the prevalence of antimitochondrial antibodies in patients with cirrhosis due to primary biliary cholangitis undergoing liver transplantation.

To assess the recurrence of primary biliary cholangitis and its relationship with the presence of antimitochondrial antibodies.

Methods: It is a descriptive, cross-sectional observational study that evaluated transplant patients from 2006 to 2019

Results: Fifty patients with liver transplantation were identified with a greater representation of the female gender (47 cases, 94%), with an average age of 51 years (32-64), with only 1 patient being transplanted with severity according to the Child A scale (2%).), while 66% (33) of the transplanted patients had Child C severity at the time of surgery. A prevalence of 68% (34) of antimitochondrial antibodies was found in patients who underwent transplantation. Recurrence identified 5 years after transplantation was identified in only 10% (5) of the patients who underwent transplantation, and most of them with positive antimitochondrial antibodies (3 patients)

Conclusion: The prevalence of antimitochondrial antibodies in primary biliary cholangitis is much lower when compared to several series in the literature, as well as the 5-year recurrence rate of the disease was quite low, which could suggest that the behavior of this disease in our Colombian population (mainly mestizo and indigenous) with a lower prevalence of these antibodies, it could influence the recurrence of the disease in transplant patients.

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P-106 COVID-19 PRESENTATION AND OUTCOMES IN 33 PATIENTS WITH AUTOIMMUNE HEPATITIS

Julia Fadini Margon, Monique Raddatz Reis Vilela,
Bruna Damasio Moutinho,
Sabrina Rodrigues de Figueiredo,
Marta Mitiko Deguti,
Débora Raquel Benedita Terrabuio,
Eduardo Luiz Rachid Cançado

Background and Aims: Clinical course of Covid-19 is not yet established in autoimmune hepatitis (AIH). About 25% of our 400 AIH-outpatients from various states in Brazil are using hydrochloroquine (HCQ) for maintenance or treatment with corticosteroids and immunosuppressants (IS). The aim is to describe the clinical features and outcomes of COVID-19 in patients with AIH.

Methods: The diagnosis of COVID was confirmed by positive PCR of nasal swab and/or by serological tests. The diagnosis and treatment of COVID was not always made in our service.

Results: 33 patients, 85% female, 41±13yr; 88% AIH-1; 54.6% with advanced fibrosis (F3/F4); 81.8% with comorbidities (17 overweight/obesity [BMI 31.8±5.4], 10 arterial hypertension, 8 diabetes, 2 systemic lupus erythematosus [SLE, with renal failure], 1 celiac disease and malnutrition). The most frequent symptoms were cough (20), headache (19), anosmia and myalgia (18), diarrhea (17) and dyspnea (11). IS at infection was 14 azathioprine (AZA)+prednisone(PD), 2 AZA+PD+cyclosporine, 3 Mycophenolate +PD. HCQ was used for maintenance (6) or as a complement of IS (5). Five hospitalized patients received oxygen supplementation (1 endotracheal intubation); 1 was pregnant and 1 received methylprednisolone pulse+immunoglobulin to treat SLE immediately before COVID; 3 were under double IS and 2 HCQ. 23 received antibiotics (19 azithromycin). In 10 patients (9 with normal liver enzymes before COVID) there were IS adjustments: IS withdrawal and increase of PD dosage (6), increase PD dosage (2), IS withdrawal and HCQ prescription (1), AZA withdrawal +decrease PD dose (1). Six of the 10 patients had slight increase of liver enzymes, none liver decompensation. One patient died, with celiac disease who acquired COVID during hospitalization for lymphoma investigation.

Conclusions: It appears that patients under IS for AIH and COVID-19 show outcomes similar to that of non-immunosuppressed population. HCQ does not appear to have a positive impact on preventing or progressing the disease.

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P-107 EPIDEMIOLOGICAL AND CLINICAL PROFILE OF AUTOIMMUNE HEPATITIS IN A BRAZILIAN TERTIARY HOSPITAL

Camila Toledo Turano[1], Renata da Silva Moutinho[1],
Raul Carlos Wahle[1],
Luiza Alencar Saldanha Queiroz[1],
Claudia de Fatima Gomes Vieira Oliveira[1],
Ana Luisa Vieira Rodrigues De Queiroz[1],
Dora Gama Ribeiro Leite Altikes[1],
Paula Bechara Poletti[1]

[1] *Gastroenterology Service of Hospital do Servidor Público Estadual "Francisco Morato de Oliveira", HSPE-FMO, São Paulo, SP, Brazil*

Introduction: Autoimmune hepatitis (IAH) is a rare inflammatory liver disease with an autoimmune nature that is characterized by predominantly affecting female patients. Variable patterns of presentation of this disease should be observed at time of diagnosis and there are few epidemiological data in Brazil in relation to this disease.

Objective: Our objective was to evaluate the epidemiological profile of patients with IAH of the Gastroenterology Service of Hospital do Servidor Público Estadual "Francisco Morato de Oliveira", HSPE-FMO, São Paulo, SP, Brazil.

Methods: Descriptive, retrospective and observational study, with analysis of data from the medical records of patients, from July 2002 to July 2020.

Results: 35 patients were selected, with a female predominance (91.4%) and the average age at the diagnosis was 54.7 ± 14.2 years. The presence of extrahepatic autoimmune disease was observed in 45.7% of the cases with a predominance of thyroiditis (31.4%). Regarding the initial presentation, 59.4% of the patients presented with an acute jaundice, 31.3% with isolated elevated serum transaminases and 6.3% with decompensated liver cirrhosis. At the time of diagnosis, 50% presented with elevated gamma globulins, 79.4% with a positive standard ANA and 37.4% with positive anti-smooth muscle antibody. In relation to the initial histological evaluation, the presence of advanced fibrosis (F3 / F4) was observed in 39.2% and the most common histological finding observed was interface hepatitis in 58,3%.

Conclusion: The present study showed a high prevalence of females among IAH patients with an average age higher than that observed in other studies already published in our country. In relation to the main form of initial clinical presentation, the acute jaundice form was predominantly similar to the other national studies and the presence of advanced fibrosis in the initial histological evaluation was seen in a considerable proportion of patients.

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P-108 CORONAVIRUS DISEASE (COVID-19) IN LIVER TRANSPLANT PATIENTS: A SINGLE CENTER EXPERIENCE IN BOGOTÁ COLOMBIA

Margarita Gutiérrez[1], Leonardo Pérez[2],
Oscar Beltrán[3], Martín Garzón[3], Alejandra Amaya[1],
Carolina Salinas[3], Geovanny Hernández[3],

Cristina Torres[3], Jairo Rivera[4], Andrés Murcia[4], Gilberto Mejía[4], Adriana Varón[3]

[1] *Gastroenterology Fellow PGY-1, Universidad del Rosario, Bogotá, Colombia*
[2] *Clinical Epidemiologist and Gastroenterologist, Fundación Cardioinfantil-IC, Bogotá, Colombia*
[3] *Hepatology Department and Liver Transplant, Fundación Cardioinfantil-IC, Universidad del Rosario, Bogotá, Colombia*
[4] *Liver Transplant Department, Fundación Cardioinfantil-IC, Bogotá, Colombia, IVER*

Introduction: On January 30th of 2020, the WHO declared the COVID-19 outbreak a health emergency. In Colombia the first case was reported on March 6th of 2020. The disease has unfavorable outcomes and mortality in patients with high risk factors like solid-organ transplant recipients. In Colombia the data of the behavior disease in liver transplant patients are limited.

Objectives: To describe the prevalence, need of admission to hospital, complications and mortality of COVID-19 in liver transplant recipients.

Methods: A descriptive study of case series was performed from March 1st of 2020 to January 31st of 2021 in liver transplant recipients at Fundación Cardioinfantil-IC in Bogotá, Colombia. An analysis of clinical variables, severity laboratories, imaging and clinical follow-up were performed. Qualitative variables were described in percentage and quantitative variables were applied to a normality test using Kolmogorov Smirnov and Shapiro Wilk and the results were expressed as medians and IRQ or means and SD.

Results: Out of 540 adults liver transplant recipients on Fundación Cardioinfantil-IC, 34 patients (6.2%) were diagnosed with Covid 19, median age 62 years (IQR: 26), 20 (58%) male, 13 (38.2%) were admitted to hospitalization, and 4 (11.7%) required ICU. More frequent symptoms were fever in 17/34 patients (50%), cough in 17/34 (50%) and dyspnea 10/34 (29.4%). Ten patients (29.4%) had pneumonia as radiographic findings. Four patients required mechanical ventilation. Complications like acute renal injury were found in 3 patients, 1 patient required renal replacement therapy and 1 patient had gastrointestinal bleeding. 3 patients died (8.8%) on average 14 days of hospital length in ICU.

Conclusion: Although the group of liver transplant patients is considered to be at high risk for unfavorable outcomes in SARS COV2 infection, the data on mortality and complications were similar to the few data described in the literature.

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109 TREATMENT PROFILE OF AUTOIMMUNE HEPATITIS IN A BRAZILIAN TERTIARY HOSPITAL

Camila Toledo Turano[1], Renata da Silva Moutinho[1], Raul Carlos Wahle[1], Luiza Alencar Saldanha Queiroz[1], Claudia de Fatima Gomes Vieira Oliveira[1], Ana Luisa Vieira Rodrigues De Queiroz[1], Dora Gama Ribeiro LeiteAltikes[1], Paula Bechara Poletti[1]

[1] *Gastroenterology Service of Hospital do Servidor Público Estadual "Francisco Morato de Oliveira", HSPE-FMO, São Paulo, SP, Brazil*

Introduction: Autoimmune hepatitis (IAH) is a rare disease, marked by periods of inflammation and remission. It occurs in any age group with a bimodal incidence. The aim of IAH treatment is to achieve a complete normalization of the levels of aminotransferase and immunoglobulin and to remain remission after treatment withdrawal and to reduce the development of cirrhosis and its complications.

Objective: Our study evaluated the profile of treatment response IAH patients and identify variables related to biochemical and histological remission.

Methodology: Descriptive, retrospective and observational study, with analysis of data from the medical records of patients, from July 2002 to July 2020, with the inclusion of patients diagnosed with IAH and patients with intake of alcoholic beverages, infected with viral hepatitis, with drug-induced injury or who had overlap syndromes were excluded from the study.

Results: 35 adults with IAH were included, the average age at the diagnosis was 54.7 ± 14.2 years. All received corticosteroids and azathioprine. Side effects were observed in 28% of cases. A biochemical remission was achieved in 85% of patients and to those who underwent a new liver biopsy after treatment withdrawal, we found 68% of histological remission. Relapsed rate observed after treatment withdrawal was 35% (5/14), all of them in the first year of follow up. High levels of serum albumin was a positive factor for biochemical remission otherwise high titers of anti-smooth muscle antibody showed a worse rate of histological remission.

Conclusion: The response of treatment were similar to observed in European and North-American studies and minimum side effects were reported. Finally, patients with antismooth muscle antibody positivity achieved a lower histological response and such patients should be considered optimization of standard treatment.

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P-110 POST-TRANSPLANT OUTCOMES IN PATIENTS WITH HEPATOCELLULAR CARCINOMA SUBMITTED TO DOWN-STAGING – BRAZILIAN MULTICENTER STUDY

Julia Fadini Margon[1,2], Aline Lopes Chagas[1,2], Angelo A. Mattos[3], Márcio Augusto Diniz[4], Guilherme Eduardo Gonçalves Felga[5], Ilka de Fátima Santana Ferreira Boin[6], Rita de Cássia Martins Alves da Silva[7], Renato Ferreira da Silva[8], José Huygens Parente Garcia[9], Agnaldo Soares Lima[10], Júlio Cezar Uili Coelho[11], Paulo Lisboa Bittencourt[12], Venâncio Avancini Ferreira Alves[2,13], Luiz Augusto Carneiro D'Albuquerque[2,14], Flair José Carrilho[1,2], Brazilian HCC Study Group

[1] *Division of Clinical Gastroenterology and Hepatology, Hospital das Clínicas, Department of Gastroenterology, University of São Paulo, Brazil*
[2] *São Paulo Clinicas Liver Cancer Group, São Paulo, Brazil*
[3] *Department of Gastroenterology and Hepatology, Fundaçao Universidade Federal de Ciências da Saúde de Porto Alegre, Porto Alegre, Brazil*
[4] *Biostatistics and Bioinformatics Research Center, Cedars Sinai Medical Center, Los Angeles, United States*
[5] *Liver Transplantation Unit, Hospital Israelita Albert Einstein, São Paulo, Brazil*
[6] *Liver Transplantation Unit, State University of Campinas, Brazil*
[7] *Departamento de Clínica Médica e Unidade de Transplante de Fígado, Hospital de Base – Funfarme, Faculdade de Medicina de São José do Rio Preto – FAMERP, São José do Rio Preto, Brazil*
[8] *Departamento de Cirugía e Unidade de Transplante de Fígado, Hospital de Base – FUNFARME, Facultad de*

Medicina de São José do Rio Preto — FAMERP, São José do Rio Preto, Brazil
[9] *Ceará Unit of Liver Transplantation, Department of Surgery and Liver Transplantation, Federal University of Ceará, Fortaleza, Brazil*
[10] *Federal University of Minas Gerais School of Medicine, Belo Horizonte, Brazil*
[11] *Federal University of Parana, Surgery Department, Curitiba, Brazil*
[12] *Department of Gastroenterology and Hepatology, Portuguese Hospital of Salvador, Bahia, Brazil*
[13] *Department of Pathology, University of São Paulo School of Medicine, São Paulo, Brazil*
[14] *Digestive Organs Transplant Division. Hospital das Cínicas, Department of Gastroenterology, University of São Paulo School of Medicine, São Paulo, Brazil*

Backgrounds: Down-staging (DS) is used to convert hepatocellular carcinoma (HCC) patients outside the criteria for liver transplantation (LT) into patients within the criteria. However, LT after DS remains controversial in the literature.

Aims: Compare the post-LT survival and recurrence risk of HCC patients transplanted after DS with patients transplanted within the Brazilian selection criteria.

Methods: We conducted a multicenter, retrospective cohort study, analyzing medical records of 1,119 liver transplant recipients with HCC in Brazil. HCC treatment prior to LT and whether or not the patient was enrolled after down-staging was analyzed. Survival curves were presented using the Kaplan-Meier and compared using the log-rank test. Univariate and multiple cox regression analysis was fitted.

Results: 1,119 patients were included. 81% were males and mean age in the time of LT was 58 ± 8.2 years. In the majority of patients (91%) HCC was the reason for inclusion in transplant list and 8% of patients were listed after successful DS. At HCC diagnosis, 85% of patients were within Milan Criteria. TACE was the most frequent treatment performed. The overall survival (OS) of the entire series was 63% in 5 years, with an average follow-up time of 28 months and post-LT HCC recurrence was 8%. Relapse-free survival and OS, respectively, over 5 years, were 78% and 83% in DS patients and 75% and 89% in patients transplanted within criteria, with no statistical difference in the two analyzes. Evaluation of prognostic factors using simple and multiple Cox Regression did not show that DS was a risk factor for a worse survival or post-LT tumor recurrence.

Conclusions: In our study, patients underwent DS show good post-transplant evolution, similar to those transplanted within criteria, suggesting that response to treatment is a good selection parameter for tumors with favorable tumor biology.

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P-111 FREQUENCY OF LIVER STEATOSIS AND FIBROSIS DETERMINED BY FIBROSCAN AND CAP IN A SCREENING PROGRAM

Pedro Montes Teves[1], Rocío Galloso Gentille[2], Diego Rosales Ruiz[1], Flor Beltran Valdivia[3], Claudia Mori Torres[4], Vanessa Valenzuela Granados[5], Flor Araujo León[4], Cecilia Cabrera Cabrejos[6], Bertha Cárdenas Ramírez[6], Jaime Fustamante Flores[1], Roxana Gallegos López[7], Carlos García-Encinas[5], Carlos Nureña Flores[8], Rossana Ráez León[9], Rocío Ramos Miraval[9], Briny Rodríguez Vargas[1], Julio Santiago Marcelo[10], Stefanie Salazar Rivas[3], Sonia Salazar Ventura[1], María Grazia Venturelli Romero[6]

[1] *Hospital Nacional Daniel A. Carrión — Callao*
[2] *Hospital San José — Callao*
[3] *Hospital Central de la Policía Nacional del Perú*
[4] *Hospital Nacional Alberto Sabogal*
[5] *Hospital Cayetano Heredia*
[6] *Hospital Nacional Guillermo Almenara Irigoyen*
[7] *Hospital Nacional María Auxiliadora*
[8] *Hospital Nacional 2 de Mayo*
[9] *Hospital Centro Médico Naval Cirujano Mayor Santiago Távara*
[10] *Hospital Emergencias Villa El Salvador*

Introduction: Nonalcoholic fatty liver disease represents a worldwide public health problem, in Latin America a prevalence of around 30% is estimated, however in Peru we do not have large epidemiological studies about this.

Objectives: To evaluate the frequency of liver steatosis determined by CAP (Controlled Attenuation Parameter) and liver fibrosis by hepatic elastography in a population of patients who participated in a screening campaign.

Material and Methods: Descriptive and cross-sectional study. During the period September-December 2019, the ALEH Screening Fibroscan program was carried out in 4 reference hospitals in Lima and Callao. Patients were evaluated with a Fibroscan 530 device with M and XL probes. Those examinations that met the quality parameters were included for the study: 10 valid measurements, IQR <30% for liver stiffness, IQR <40 dB / m for CAP. The study population was people aged 18 and older who voluntarily attended the screening campaigns.

Results: 1978 patients were included, with an average age of 54.22 +/- 14.36 years, the distribution by sex was 1342 women (67.8%) and 636 men (32.2%). The distribution according to the degree of liver steatosis determined by CAP was S0: 1198 (60.6%), S1: 335 (16.9%), S2: 59 (3%), S3: 386 (19.5%). The distribution according to the degree of fibrosis was F0-1: 1662 (84%), F2: 97 (4.9%), F3: 98 (5%), F4: 121 (6.1%).

Conclusions: In the studied population a frequency of hepatic steatosis of 39.4% and advanced hepatic fibrosis of 11.1% was found.

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P-112 ALPHA-FETOPROTEIN AS A PROGNOSTIC FACTOR IN PATIENTS WITH HEPATOCELLULAR CARCINOMA SUBMITTED TO LIVER TRANSPLANTATION — BRAZILIAN MULTICENTER STUDY

Aline Lopes Chagas[1,2], Ângelo Alves de Mattos[3], Márcio Augusto Diniz[4], Guilherme Eduardo Gonçalves Felga[5], Ilka de Fátima Santana Ferreira Boin[6], Rita de Cássia Martins Alves da Silva[7], Renato Ferreira da Silva[8], José Huygens Parente Garcia[9], Agnaldo Soares Lima[10], Júlio Cezar Uili Coelho[11], Paulo Lisboa Bittencourt[12], Venâncio Avancini Ferreira Alves[2,13], Luiz Augusto Carneiro D'Albuquerque[2,14], Flair José Carrilho[1,2], Brazilian HCC Study Group

[1] *Division of Clinical Gastroenterology and Hepatology, Hospital das Clínicas, Department of Gastroenterology, University of São Paulo School of Medicine, São Paulo, Brazil*
[2] *São Paulo Clinicas Liver Cancer Group, São Paulo, Brazil*
[3] *Department of Gastroenterology, Fundação Universidade Federal de Ciências da Saúde de Porto Alegre, Porto Alegre, Brazil*
[4] *Biostatistics and Bioinformatics Research Center, Cedars Sinai Medical Center, Los Angeles, United States*

[5] *Liver Transplantation Unit, Hospital Israelita Albert Einstein, São Paulo, Brazil*
[6] *Liver Transplantation Unit, State University of Campinas, Campinas, Brazil*
[7] *Departamento de Clínica Médica e Unidade de Transplante de Fígado, Hospital de Base – Funfarme, Faculdade de Medicina de São José do Rio Preto – FAMERP, São José do Rio Preto, Brazil*
[8] *Departamento de Cirugia e Unidade de Transplante de Fígado, Hospital de Base – FUNFARME, Faculdade de Medicina de São José do Rio Preto – FAMERP, São José do Rio Preto, Brazil*
[9] *Ceará Unit of Liver Transplantation, Department of Surgery and Liver Transplantation, Federal University of Ceará, Fortaleza, Brazil*
[10] *Federal University of Minas Gerais School of Medicine, Belo Horizonte, Brazil*
[11] *Federal University of Parana, Surgery Department, Curitiba, Brazil*
[12] *Department of Gastroenterology and Hepatology, Portuguese Hospital of Salvador, Bahia, Brazil*
[13] *Department of Pathology, University of São Paulo School of Medicine, São Paulo, Brazil*
[14] *Digestive Organs Transplant Division, Hospital das Cínicas, Department of Gastroenterology, University of São Paulo School of Medicine, São Paulo, Brazil*

Background: Liver transplantation (LT) is the treatment of choice for unresectable early hepatocellular carcinoma (HCC). Previous studies demonstrated that Alpha-fetoprotein (AFP) is an important biomarker of prognosis and tumor recurrence.

Aims: The aim of our study was to analyze the role of AFP in the post-transplant outcomes of HCC patients undergoing LT.

Methods: We conducted a multicenter, retrospective cohort study, analyzing medical records of 1,119 liver transplant recipients with HCC in Brazil. Survival curves were presented using the Kaplan-Meier and compared using the log-rank test. Univariate cox regression analysis was fitted. We performed an evaluation of the effect of the continuous variable on the risk ratio, to define the best "cutoff point" of AFP level at HCC diagnosis and pre-transplantation capable of differentiating patients from risk of recurrence and survival.

Results: Among 1,119 cases, 81% of patients were male, with a mean age at transplantation of 58 years. At HCC diagnosis, 85% were within Milan Criteria (MC). Median pre-LT AFP was 9.7 ng/ml (0-40,800 ng/ml) and 51% of patients had pre-LT AFP ≤ 10 ng/ml. The overall survival was 63% in 5 years and post-LT HCC recurrence was observed in 8% of patients. We found AFP > 400ng/ml at HCC diagnosis and AFP pre-LT > 200ng/ml as the better “cutoff points” for both overall survival and recurrence risk. Patients with AFP pre-LT ≤ 200 ng/ml had a better overall survival and recurrence-free survival compared with patients with AFP > 200 ng/ml, respectively, 76% and 92% versus 67% and 66% in 5-years (p <0.001). Pre-LT AFP >200ng/ml and being outside MC at diagnosis were also independent risk factors for post-LT HCC recurrence and poor survival in multivariate analysis.

Conclusions: Our study demonstrated role of AFP as a main pre-transplant prognostic factor, both to predict post-LT tumor recurrence and survival.

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P-113 COVID 19 AND CIRRHOSIS, A DEADLY COMBINATION. WHAT HAPPENS IN ECUADOR?

Manuel Guaranda[1], Maizury Garzón[2], Rubén Muñoz[2], Diana Carbonell[1], Marcela Mahecha[1]

[1] *Servicio de Gastroenterología, Hospital General HOSNAG, Guayaquil, Ecuador*
[2] *Servicio de Gastroenterología, Hospital de Especialidades “Abel Gilbert Pontón”, Guayaquil Ecuador*

Introduction: COVID-19 represents a great threat in patients with cirrhosis, being a poor prognostic factor. Since the first COVID 19 case in Ecuador 02/29/2020, its impact on cirrhotics in this country is unknown.

Aim: To determine the morbidity and mortality of cirrhotic patients with COVID 19. Is it higher in relation to cirrhotics without COVID 19?

Methods: The present study was multicenter, observational, analytical, prospective and cross-sectional, included 147 hospitalized patients from 2 health units in Guayaquil-Ecuador (Hospital General HOSNAG and Hospital “Abel Gilbert Pontón”), from February 29, 2020 to February 28, 2021. Two **groups** were established: **A**, cirrhotic patients with COVID 19; **group B**, cirrhotic without COVID 19, the following tests were used: Student's T, U Mann-Whitney continuous variables and chi-square, Fisher's exact categorical variables; Statistical analysis was performed with SPSS version 21.

Results: Of the 147 included, **Group A** led by male sex 40 patients (52.6%), female sex 36 (47.4%), distribution according to child pugh was 10 (13.6%) stage A, 36 (47, 3%) stage B and 30 (39.4%) stage C, causes of admission were: SRI 59 (77.6%), febrile syndrome 15 (19.7%), encephalopathy 2 (2.6%), average days of hospitalization 13 (± 6.4), associated mortality was 28 (36.8%) most frequent causes of death; SRI 19 (25%), ACLF 8 (10.5%), AMI 1 (1.3%). **Group B**, male sex 32 patients (54.5%), female 29 (45.5%), child pugh A only 2 patients (3.2%), stage B 30 (49.1%) and C with 29 (47.5%), reason for admission more frequent was UGB 27 (44.2%), ascites 22 (36%), encephalopathy 9 (14.7%), febrile syndrome 3 (4.9%), average days hospitalized 11 (± 5), mortality of 27.8%, causes of death; UGB 9 (14.7%), ACLF 5 (8.1%) and encephalopathy 3 (4.9%) (P 0.002).

Conclusion: The morbidity and mortality of cirrhotic patients with Covid 19 was higher than those without Covid 19.

Table 1
Comparison of cirrhotic patients with COVID-19 and cirrhotic patients without COVID-19

Characteristics		Group A (n= 76)	Group B (n=61)	P value (<0.05)
Age		52 (± 10.6)	54(± 9.2)	0.988
Sex				
	Male	40 (52.6%)	32 (54.5%)	1.00
	Female	36(47.4%)	29(45.5%)	0.804
Child Pugh				
	A	10(13.6%)	2(3.2%)	0.923
	B	36(47.3%)	30(49.1%)	0.817
	C	30(39.4%)	29(47.5%)	0.067
Reason for admission				
	S.R.I*	59(77.6%)	0(0%)	0.003
	Febrile syndrome	15(19.7%)	3(4.9%)	0.026
	Encephalopathy	2(2.6%)	9(14.7%)	0.078
	U.G.B	0(0%)	27(44.2%)	0.266
	Ascites	0(0%)	22(36%)	0.767
Hospitalization days		13 (± 6.4)	11 (± 5)	0.355
Mortality		28 (36.8%)	17 (27.8%)	0.002
Death cause				
	S.R.I	19(25%)	0(0%)	0.004
	U.G.B**	0(0%)	9(14.7%)	0.133
	Encephalopathy	0(0%)	3(4.9%)	0.767
	A.C.L.F***	8(10.5%)	5(8.1%)	0.246
	A.M.I***	1(1.3%)	0(0%)	0.158

***S.R.I:** Severe respiratory insufficiency
****U.G.B:** Upper gastrointestinal bleeding
*****A.M.I:** Acute myocardial infarction
******A.C.L.F:** Acute-on-chronic liver failure

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P-114 LIVER TRANSPLANTATION FOR NON-ALCOHOLIC STEATOHEPATITIS: OUTCOMES IN THE MAIN TRANSPLANT CENTER IN PERU

Saúl Espinoza[1], Martin Padilla[1,2], Julia Sumire[3], Bertha Cárdenas[1], Carmen Cerrón[1], Omar Mantilla[1], Jose Rivera[1], Alfonso Solar[1], Wilmer Bacilio[1], Carlos Rondon[1]

[1] *Departamento de Trasplantes Hospital Nacional Guillermo Almenara, EsSalud, Lima, Perú*
[2] *Departamento de Medicina. Universidad Nacional Mayor de San Marcos*
[3] *Servicio de Anatomía Patológica, Hospital Nacional Guillermo Almenara, EsSalud, Lima, Perú*

Introduction: Actually, Metabolic associated Fatty Liver Disease (MAFLD) is the most prevalent liver disease in the world and Non-Alcoholic Steatohepatitis (NASH) cirrhosis is the main indication for liver transplantation (LTx).

Objective: To describe the frequency, characteristics, and outcomes of liver transplantation for patients with NASH in the main transplant center in Lima, Peru.

Methods: We analyzed data from liver transplant patients from March 2000 to December 2020 using the electronic data. A sample of 89 patients was selected from a total of 286 liver transplants. Inclusion criteria: Patients with Liver biopsy performed 12 months after LTx. Patients under 14 years of age or those who had hepatic steatosis with an etiological diagnosis of virus C or post-transplant alcohol consumption were excluded.

Results: The most frequent etiologies of liver cirrhosis in transplant patients in general were NASH, Autoimmune Hepatitis and Alcoholic liver disease: 34.83%, 19.10% and 12.36% respectively, with a mean BMI of 25.68 (SD=4.48). In pre transplant setting: NASH had a BMI of 28.38 (SD=4.44) and those who did not have 24.39 (SD=3.91). 32.58% (n=29). NASH post-transplant recurrence: 23.60% (n=21) and only 8.99% (n=8) mild steatosis. The recurrence of NAFLD and NASH was 62.07% (n=18) and 61.90% (n=13) respectively, while the presentation of NAFLD and NASH de novo was 37.93% (n=11) and 38.10% (n=8).

Conclusions: The prevalence of NASH post-liver transplantation is high in Peru. Post-transplant MAFLD/NASH recurrence was higher than de novo cases and BMI was high in this group.

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P-115 MANAGEMENT AND OUTCOME OF LIVER ABCESS AFTER LIVER TRANSPLANTATION: EXPERIENCE OF A SINGLE CENTER IN PERU

Augudberto Montufar[1], Carlos Rondón[2], Bacilio Wilmer[1], Omar Mantilla[1], José Rivera[1], Alfonso Solar[1], Bertha Cárdenas[1], Carmen Cerrón[1], Saul Espinoza[1], Martin Padilla[1,2]

[1] *Departamento de Trasplantes Hospital Nacional Guillermo Almenara, Lima, Perú*
[2] *Departamento de Medicina, Universidad Nacional Mayor de San Marcos, Lima, Perú*

Introduction: Liver abscesses are a rare and serious complication in liver transplantation associated with hepatic artery thrombosis, biliary stenosis, choledocho-jejunostomy, cholangitis, living donor liver transplantation, Split liver, DCD, liver biopsy and diabetes.

Objectives: To show the experience in the diagnosis, treatment, and results of liver abscesses in liver transplant patients in 20 years in the Transplant Department of the Guillermo Almenara National Hospital. EsSalud.

Methods: Descriptive, cross-sectional, retrospective study. We reviewed the demographic data and the clinical characteristics, type of graft, donor, time of transplantation, size, and number of lesions, as well as isolated germs, use of antimicrobials, treatment, and mortality.

Results: Twelve patients were identified in 303 liver transplants (3.96%). The average age was 57 years. Symptoms: fever, pain, general malaise. Abnormal liver function test: 50% and 90% had elevated GGTP. Acute kidney injury in 6 cases (50%). Hospital staying: 32 days (4-135). Liver abscess developed at 63 months on average. Size 8 cm (2-23 cm). One lesion: 9 (75%); the most compromised liver segment was VI and VIII: Choledocho-jejunostomy: 83%. Biliary strictures (5 cases 41.6%): 2 related to hepatic artery thrombosis, 2 hepatic artery stenosis, and one case related to TACE. Treatment: Cultures: E. Coli and candida. Antibiotics:: Carbapenem and vancomycin. Surgical drainage (1, 8.3%) and percutaneous drains (11, 91.6%) were performed. Mortality was 8.3% (1 case: related to the abscess)

Conclusions: The results of our experience show a similar prevalence to other studies, we found no relationship with the indication for transplantation, 80% of the cases occurred in the first 100 days, the main risk factors were biliodigestive diversion, vascular and biliary complications; Most of the treatment was by percutaneous drainage and antibiotic treatment lasted 4 to 6 weeks.

	No	%
Trombosis Arteria Hepática	3	25
Estenosis biliar	3	25
Derivación biliodigestiva	10	83.3
Colangitis	3	25
LDLT	0	0
SPLIT liver	0	0
DCD	0	0
Liver biopsy	1	8.3
DM II	1	8.3

VIA	CAUSA	No	%
ASCENDENTE	ESTENOSIS AH	2	16
	TROMBOSIS AH	1	8.3
	ESTENOSIS BILIAR	5	41.6
	COLANGITIS	1	8.3
	TACE	1	8.3
PORTAL	GECA	1	8.3
SISTEMICA	NEUMONIA	1	8.3
CONTIGUIDAD	NINGUNA	0	0

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P-116 PREGNANCY AFTER LIVER TRANSPLANTATION: OUTCOMES IN PERU

Bertha Cárdenas Ramírez[1], Martin Padilla-Machaca P.[1,2], Omar Mantilla Cruzatti[1], José Rivera Romaní[1], Alfonso Solar Peche[1], Carmen Cerrón Cabezas[1], Saul Espinoza Rivera[1], Augudberto Montufar Valer[1], Carla Llorente Zavaleta[3], Carlos Rondón Leyva[1]

[1] *Departamento de Trasplantes, Hospital Nacional Guillermo Almenara, EsSalud, Lima, Perú*
[2] *Departamento de Medicina-Universidad Mayor de San Marcos-Lima Perú*
[3] *Depatamenteo de Gineco obstetricia -Servicio de Alto Riesgo, Hospital Nacional Guillermo Almenara, EsSalud, Lima, Perú*

Introduction: Pregnancy after liver transplantation has favorable results, but maternal and graft risk, optimal immunosuppression (IS), and fetal outcomes are described.

Objective: To show our outcomes of pregnancy after liver transplantation

Materials and Methods: This is a case series study. We conducted a retrospective review of liver transplant recipients who had received prenatal care at Guillermo Almenara Hospital between Mach 2001 and February 2021

Results: During the study period, 286 patients underwent liver transplantation. There were 45 women (15 %) in childbearing age (15-45 years old), and 7 (15%) of them became pregnant during the study period.

There was a total of 7 pregnancies. The mean age of patients at the time of transplant was 31.7 +- 4.5 years, and the mean interval between transplant and conception were 16.6 (IQR 38, 25 % <11.6 meses). There were 5 live births (71.4%), 1 spontaneous miscarriage (14 %), and one fetal death at 22 weeks. Median gestational age at delivery was 34.8+-4.21 weeks (range, 29−39), and the median birthweight was 2483 g (range, 1350−3060 g). Prematurity occurred in 3 (60 %) neonates, and 3 (60 %) neonates were adequate birth weight. Apgar scores were ≥7 in 100 %.

All the pregnant has an immunosuppressive regimen base in tacrolimus. One pregnant with chronic rejection had a newborn with good evolution.

Conclusions: The Pregnancy after liver transplantation had a favorable outcome in most of our cases, but there are still serious risks to the mother and the fetus. The Evaluation and follow-up must involve a multidisciplinary team.

Key Words: LIVER TRANSPLANT, PREGNANCY, TACROLIMUS

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P-117 LOW PREVALENCE OF HEPATITIS B AND C AMONG PEOPLE LIVING IN POVERTY IN NORTHEAST BRAZIL

Livia Melo Villar, Aline Borges Cardoso, Juliana Custódio Miguel, Elisangela Ferreira da Silva, Julia Trece Marques, Giselle Prado do Nascimento, Barbara Vieira do Lago

[1] *Viral Hepatitis Laboratory, Oswaldo Cruz Foundation, Rio de Janeiro, Brazil*

Introduction: Hepatitis B and C infection are responsible for more than 300 million of chronic liver disease patients all over the world. One goal of WHO 2030 agenda is the eradication of hepatitis B and C. However poverty is a great obstacle to achieve this goal. **In** Brazil, more than 13 million of people live in poverty (PLP) and could be vulnerable to HBV and HCV.

Objectives: This study aims to determine HBV and HCV prevalence and analyze the response to HBV vaccination by measuring anti -HBs antibodies **in** serum samples from PLP.

Methods: This was a cross- sectional study carried out in rural settlement in the municipality of Sao Joao do Piaui, Northeast Brazil in March and July 2019. Participants were recruited in their homes and after signing the informed consent, they gave blood samples. A commercial ELISA was use d for measurements of antibodies against i) hepatitis B surface antigen (anti-HBs) and ii) hepatitis B core antigen (HBc) and of the hepatitis surf ace antigen (HBsAg). Nearly half of the population was female (51.0%). The mean age was 36.2±20.4 years, and about 43.2% received a monthly income of approximately $35.00 USD. Most are self-declared black or mixed race (81.9%), were married (50.1%), 15.5% was illiterate and 25.8% had a maximum of six years of formal schooling. Overall zero positivity for HBsAg, anti-HBc and anti -HBs determined by ELISA was 0.2%, 5.1 % and 43.9%, respectively. Anti-HBs reactivity was not associated with monthly income and schooling. Low rates of vaccination against hepatitis B were found among PLP in Northeast Brazil, highlighting the need for preventive actions towards this population segment, vulnerable and a potential disseminator of this infection. Strategies to increase HBV vaccination will be essential to eradicate hepatitis Band achieve the goals of WHO 2030 agenda. Report the levels of biochemical markers in CLD patients with or without COVID-19 to give more information that could help clinical monitoring.

Study was approved by Brazilian Ethics Committee. Blood samples were collected after signed informed consent.

Results: Most of individuals were male 56% (37/66) and mean age of population was 49±17 years. Six out 66 CLD patients were SARS CoV-2 RNA positive at baseline. At the end of follow-up, all of these 6 patients achieved SARS-CoV-2 clearance. At least once during follow-up, the CLD group versus CLD/COVID-19 group, 48% (29/60) vs. 17% (1/6) (P = 0.2) had abnormal alanine aminotransferase; 47% (28/60) vs. 17% (1/6) had abnormal aspartate aminotransferase (P = 0.21); 60% (36/60) vs. 67% (4/6) had abnormal γ-glutamyl transferase (P = 1.00), 32% CLD patients (19/60) had abnormal total bilirubin levels vs. none of the CLD/COVID-19 group (P = 0.17).

Conclusions: Previous liver disease did not seem to increase the biochemical levels, except GGT, during COVID-19 infection. However, liver function monitoring is still essential for both COVID-19 patients with and without liver disease.

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P-118 NONINVASIVE PARAMETERS OF PREDICTORS OF ESOPHAGEAL VARICES (EV) IN CHILDREN WITH INTRAHEPATIC PORTAL HYPERTENSION

Marina R. Adam[1], Carlos Oscar Kieling[1], Guedes Renata Rostirola[1], Sandra MG Vieira[1,2]

[1] *Hospital de Clínicas de Porto Alegre: unidade de gastrenterologia e hepatologia pediátrica*
[2] *Universidade Federal do Rio Grande do Sul; departamento de pediatria*

Introduction: Children with portal hypertension (PH) are at risk for variceal bleeding. The standard test for screening varices is endoscopy, an invasive method.

Objective: Evaluate noninvasive parameters of predictors of esophageal varices (EV) in children with intrahepatic portal hypertension.

Method: This cross-sectional study included 168 children with no history of GI bleeding who underwent the first screening endoscopy for EV (mean age: 8.3+-4.7 years). Patients were classified into two groups: G1: Child-Pugh A and G2: Child-Pugh B and C. The noninvasive methods assessed were: 1) platelet count; 2) spleen size; 3) spleen size z score; 4) platelet count/spleen size ratio; 5) platelet count and spleen size z score ratio; 6) platelet count and equivalent adult spleen size ratio; 7) APRI; 8) CPR; 9) Risk score and 10) King's variceal prediction score. Continuous variables were expressed as the median and interquartile range (25%-75%) and compared using the Mann-Whitney test. The distribution of variables was analyzed through the chi-square test, with Fisher exact test, 2tailed. ROC curve analysis was used to calculate diagnostic accuracy as areas under the curve (AUROC); 95%confidence intervals (CI). The significance was considered when P<0.05.

Results: The incidence rate of EV was: G1 49.4% (44/89) and G2 64.6% (51/79) (OR 1.86-95% CI 1.001-3.47). The significant predictor of EV for G1was the Risk score: OR 0.813 (95% CI 0.723-0.903) and for G2, platelet count/spleen size z score: OR 0.849 (95% CI 0.756-0.943).

Conclusions: The noninvasive predictors of EV varied according to the severity of the disease. **The Risk Score forecasted EV in**

children Child A. Platelets/spleen size predicted EV in children Child B and C.

	Group 1 (N=89)	Group 2 (N=79)	P
Platelet count (10^3/mcl)	142.0 (99.5-207.5)	95.0 (64.0-180.0)	0.003
Spleen size (cm)	12.7 (11.0-14.8)	13.7 (11.0-16.9)	0.088
Spleen size z score	3.92 (2.25-6.13)	5.94 (2.64-8.16)	0.010
Platelet count/spleen size	1.06 (0.72-1.46)	0.72 (0.41-1.29)	0.008
Platelet count/spleen size z score	14.7 (9.7-21.2)	9.3 (5.1-17.2)	0.000
Platelet count/EASS	8.3 (5.3-11.0)	5.5 (3.3-9.9)	0.005
Apri	1.0 (0.5-2.3)	2.3 (1.1-5.0)	0.000
Cpr	117.9 (110.4-130.4)	95.3 (77.7-109.8)	0.000
Risk score	-1.8 (3.4- -0.4)	1.6 (-0.2-3.2)	0.000
King's variceal prediction score	94.9 (84.6-106.4)	64.7 (44.4-83.6)	0.000
Esofageal varices	44 (49.4%)	51 (64.6%)	0.061

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P-119 GENETIC VARIABILITY OF HEPATITIS B VIRUS AMONG DIFFERENT PHASES OF CHRONIC INFECTION AND HIV COINFECTION IN BRAZIL

Livia Melo Villar[1], Bianca Leires Marques[1], Larissa Tropiano da Silva Andrade[1], Vanessa Alves Marques[1], Moyra Machado Portilho[1,2], Lia Laura Lewis-Ximenez[1], Barbara Vieira do Lago[1]

[1] *Fiocruz, Rio de Janeiro, Brazil*
[2] *Fiocruz Bahia, Salvador, Brazil*

Introduction: Molecular studies regarding hepatitis B virus (HBV) infection are essential as the disease severity depends on these specifications.

Objectives: This study aims to determine HBV genotypes and subgenotypes, nucleos(t)ide analogs (NA) resistance, and HBsAg escape mutations in HBV patients according to different phases of chronic hepatitis B (CHB) and HIV status.

Methods: A total of 93 HBsAg+ patients over 18 years of age were included. Four different phases of CHB have included: 10 immune tolerant phases (IT), 5 immune reactive HBeAg positive phase (IR), 46 low replicative (LR) state, 23 HBeAg-negative CHB (ENH), and also 9 HIV/ HBV coinfected individuals. Samples were submitted to PCR for detecting an overlapping *pol*/ *S* gene region and direct sequenced. Phylogenetic analyses were performed using Mega-X software, identification of vaccine escape and NA resistance was made using the Geno2Pheno HBV website.

Results: Mean age was 44.5± 13.3 years and most of HBV subjects were males (56.9%). Most of the individuals presented genotype A (75.3%) irrespective of group, subgenotype A1 (61 3%), followed by genotypes D (17.3%), F (6.4%), E (1.1%). Genotypes D and F were prevalent in LR group (75% and 66.6%, respectively) and genotype E was found only in IT group (1/1). It was not found NA resistance described to common antiviral treatment. However, high frequency of some specific mutations was found in all groups, such as, M129L (72.0%); W1 53RW (36 5%); V1 63I (64.5%); I253V (55.9%); V278IV (30.1%). Seven subjects (7.5%) presented HBsAg escape mutation of whom the majority had genotype A (85.7%) and belongs to LR group (57.1%); 1 had genotype D (14.3%), 2 were HIV/ HBV coinfected (28.6%) and 1 was ENH (14.3%).

Conclusions: It was found a high prevalence of genotype A1 irrespective of CHB phase or HIV coinfection and HBsAg escape mutations could impact antiviral treatment and diagnosis.

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P-120 NATIONAL SURVEY ON CURRENT PRACTICES TO PREVENT HBV REACTIVATION DURING IMMUNOSUPPRESSION

J.M. Araujo-Neto[1], M. Iasi[1], L.C. Nabuco[1], F.S.R.P. Pessoa[1], E. Vilela[1], R. Stucchi[1], L.Y. Sassaki[1], A.K.G. Melo[1], A.C.S. Jesus[1], J.F. Ramos[1], M.I. Braghiroli[1], G. Pilleggi[1], D.M. Langhi-Junior[1], A.K. Coutinho[1], M.L. Ferraz[1], P.L. Bitencourt[1], C.E. Brandão[1]

[1] *Instituto Brasileiro do Fígado - Sociedade Brasileira de Hepatologia*

Introduction: Reactivation of hepatitis B virus (HBVr) is a problem still neglected worldwide.

Objective: To assess knowledge of physicians regarding HBVr during immunosuppression including use of immunobiologics (IS/IB).

Methods: Between August and October 2020, a national survey regarding current practices in HBVr prevention was sent to members of the Brazilian Societies of Hepatology, Gastroenterology, Hematology, Rheumatology, Oncology and Transplantation using a web-based approach.

Results: 510 physicians answered the survey, mainly gastroenterologists (35%) and rheumatologists (31%). The majority had less than 20 years of clinical practice (62%). 91% reported to routinely request serology for HBV before IS/IB. To 90% of the interviewed doctors, in their clinical practice, serology is missing in less than 25% of their patients already using IS/IB. The most common serology panel requested (75%) is HBsAg, Anti-HBc and Anti-HBs. 76% recommend strategies to prevent HBVr for either HBsAg and/or anti-HBc-positive patients, however, 16% only prescribe to HBsAg-positive. 85% have an specialist on HBVr available for referring patients, but 30% start prevention strategies without the need for specialized evaluation. In this case, the preferred treatment options are entecavir (18%), tenofovir (17%) and lamivudine (6%). 88% reported good adherence of their patients to HBVr prevention strategy. Only 27% referred to maintain prevention strategy for at least 6 months after IS/IB interruption. Finally, 73% of the participants never experienced HBVr on their practice and 42% participated in educational activities about HBVr in the last 2 years.

Conclusions: Compared to previous literature, Brazilian physicians seems to have a better compliance to international guidelines toward HBVr prevention. With the exception of duration of HBVr prophylaxis, medical knowledge on this field can be regarded as above average.

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P-121 ASSESSMENT OF THE ANTERIOR AND POSTERIOR ATTENTIONAL NETWORKS IN PATIENTS WITH MINIMAL HEPATIC ENCEPHALOPATHY

Daniel Santana[1], Luis Pérez José[1], Fátima Higuera de la Tijera[1]

[1] *Hospital General de México, "Dr. Eduardo Liceaga"*

Introduction: In patients with minimal hepatic encephalopathy (MHE), the spectrum of cognitive functions impaired is related to motor slowness, although the attentional network could also be affected. The posterior and frontal attentional networks can be assessed with discrimination and interference tests, respectively.

Objective: Compare the response to the increase of attentional demands through the discrimination test in the presence of distractor stimuli.

Methods: Thirty-five cirrhotic (55±3.4 years old) patients and forty-seven controls (41±11.1 years old) performed a discrimination task consisting of two different tones and an interference task of three tones. Reaction times (RT) were recorded. MHE was detected with the number connecting test (NCT-B), age, and years of education corrected.

Results: MHE was detected in 12/35 (34%) of cirrhotic patients. Analysis of covariance ANCOVA (group as a factor, age, and education as covariables) was statistically significant for RT of the discrimination task; control vs cirrhosis (p=0.011) and control vs MHE (p<0.001). For the interference task in both control vs cirrhosis and control vs MHE (p<0.001), the RTs were not different between MHE and cirrhosis.

Conclusions: The attentional network anterior and posterior assessed with discrimination and interference attentional test is impaired in both cirrhotic and MHE patients compared to controls.

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P-122 LIVER TRANSIENT ELASTOGRAPHY (FIBROSCAN). FIRST REPORT OF EXPERIENCE IN ECUADOR

Jaysoom Abarca Ruiz[1], Mariela Villagomez Estrada[2], Wendy Calderón[1], Enrique Carrera[1]

[1] *Gastroenterology Service Hospital Eugenio Espejo, Hospital Metropolitano, Quito, Ecuador*
[2] *Universidad Centra del Ecuador, Quito, Ecuador*

Introduction: Chronic liver diseases and their complications are important health problems due to their high morbidity and mortality. In Ecuador, according to INEC during 2017, cirrhosis and other liver diseases represent the seventh leading cause of death. In public hospitals liver diseases represent a significant percentage of hospital admissions, generating a significant economic impact.

In 2017 year, a private health center acquired a liver transient elastography, being the first equipment available for Ecuadorians.

Objectives: Describe the experience obtained with FibroScan, during the years 2017-2018, in a private center in the city of Quito-Ecuador.

Methods: Retrospective descriptive study. All patients attended from January 2017 to December 2018 were included. The Fibroscan touch 503 Echosens MR brand elastography equipment was used. For the classification of Fibrosis (Kp) the Fibroscan table, specified by the manufacturer, was used.

Results: During the observational period, a total of 272 procedures were performed distributed in 173 male (50 - 59 years old), and 99 female (40- 49 years old). The most frequent indication was for fatty liver (36.76%), followed by altered liver tests (31.25%). Approximately, 40.1% of patients had a BMI between 25 and 29.9 which corresponds to grade I and II overweight. Stages F0-F1 in relation to Kpa were found in 171 patients, 62.9% of the series and stages F4 in 59 patients (21.7%). A total of 37.1% of patients with S3 measured by CAP were found; of which 29% belong to the overweight and obesity groups 1. In relation to age, the stage corresponding to F4 was found in 45 (20.1%) patients aged between 50 and 89 years.

Conclusion: Non-alcoholic and alcoholic fatty liver (36.75% of our cohort) constitutes one of the most prevalent pathologies in Ecuador as a cause of chronic liver disease.

- The highest percentage of patients, 62.9%, were in Stages F0-F1, which allows a timely therapeutic intervention to prevent their progression. 21.7% were found in stage F4 (cirrhosis).
- Elastography is a non-invasive, precise, safe, easy to perform, cost-effective technique, with immediate results to estimate liver fibrosis.

IMC	18,5-24,9	%	IMC	25,0-29,9	%
F0-F1	43	61.43	F0-F1	77	70.64
F2	2	2.85	F2	13	11.93
F3	4	5.72	F3	5	4.59
F4	21	30	F4	14	12.84
IMC	30,0-34,9	%	IMC	35,0-39,9	%
F0-F1	40	58.82	F0-F1	7	41.18
F2	8	11.76	F2	3	17.64
F3	3	4.41	F3	0	0
F4	17	25	F4	7	41.18
IMC	> 40,0	%			
F0-F1	4	50			
F2	3	37.5			
F3	1	12.5			
F4	0	0			

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P-123 PROFILE OF NONALCOHOLIC FATTY LIVER DISEASE (NAFLD) X TREATMENT: A NUTROLOGY'S VIEW

Suzana Tyrrasch de Almeida-PHD[1], Georges Benedicto de Almeida Neto[2], Ana Paula Tyrrasch de Almeida[3], Felipe Gabino Macedo[4]

[1] *Adjunct Professor of Clinical Medicine-Hospital das Clínicas/EBSERH/UFPE/Recife/PE/Brazil*
[2] *Physician of Recife City Hall- Endocrinology / Nutrology -Recife/PE/Brazil*
[3] *Physician Recife City Hall - Medical Clinic- Recife/PE/ BRAZIL*
[4] *Nutritionist- Recife/PE/Brazil*

Introduction: Non-alcoholic fatty liver disease (NAFLD) is defined as a worldwide public health problem. NAFLD is a metabolic syndrome that involves: dyslipidemia, type 2 diabetes mellitus (DM2), obesity, cardiovascular diseases, cirrhosis, low levels of adiponectin and hepatocarcinoma whose rate of morbidity and mortality is quite high.

Objective: To evaluate the relationship between the degree of non-alcoholic fatty liver disease (NAFLD) in patients of both sexes, analyzing lifestyle and drugs associated with metabolic disorders that correct and influence the evolution of the disease.

Methods: A retrospective study was conducted in patients with NAFLD treated, following the following procedures: physical and laboratory (fasting glucose, LDL and HDL cholesterol, triglycerides, TGO, TGP, gamaGT, ferritin and insulin and Hydrox-vit-D) (Table 1), ultrasound of the liver and assessment of nutrology / nutrition. Safety and efficacy were assessed over a 180-day follow-up.

Results: 60 patients were included with variables shown in (table 1). In the ultrasound analysis he classified: mild (8), moderate (36) accentuated (16). Hepatic elastography (Fibroscan) was performed in 1/3 of the patients in a marked way, mostly showing fibrosis <2 on the Metavir scale and in two cases: fibrosis 4. The nutritional protocol with a protein-based diet: chicken, fish and eggs, fruits, roots, vegetables and whole grains, including probiotics in 30% associating orlistat-120 mg + omega-3-1000 (EPA + DHA) + silymarin-200mg + Metformin (glyphage-XR-500mg) in two daily doses; vit supplementation. A-Z and vit. D (2,000 to 10,000 wm) and physical exercise. In the period between 90 and 180 days, weight loss, reduction in hepatic and metabolic rates and changes in the grading of liver ultrasound analysis were observed.

Conclusion: The profile of NAFLD was determined by a non-invasive method: laboratory and ultrasound and the recommendation of a nutrology / nutrition protocol, associated with drugs that correct

metabolic changes, proved to be effective in controlling this pathology.

Gender	33 H (%)	27 M (%)	
	Minimum	Maximum	Average
Age (Years)	26	63	47
Weight	59	142	88
Blood glucose	88	246	96
Cholesterol (LDL)	71	226	129
Cholesterol (HDL)	37	82	41
Triglycerides	99	504	193
TGO	17	99	39
TGP	23	152	69
YGT	11	103	47
Ferritin	64	736	380
Insulin	16	41	16,21
Hidroxi-vit-D	16	49	23

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P-124 POST PARACENTESIS COMPLICATIONS IN PATIENTS WITH DIAGNOSIS OF LIVER CIRRHOSIS

Kevin Molina

Department of Internal Medicine, Roosevelt Hospital, Guatemala, Guatemala

Introduction: Post paracentesis complications are correlated to a high morbidity and mortality rate in patients with a diagnosis of liver cirrhosis, among whom a high incidence of them has been observed after performing this procedure.

Objectives: To identify post paracentesis complications in patients diagnosed with liver cirrhosis in the Department of Internal Medicine of the Roosevelt Hospital from January 1 to December 31, 2018, Guatemala.

Population and Methods: Cross-sectional descriptive study carried out in patients with a diagnosis of liver cirrhosis who had undergone decompressive / diagnostic paracentesis.

Results: The majority of patients were male (70%) with child pug C liver cirrhosis (71%) aged between 40 to 49 years of age (44%), with less than 1 year of diagnosis of liver cirrhosis (64%). Persistent leakage of ascites fluid from the puncture site was the most frequent complication (35%), followed by secondary bacterial peritonitis and hematoma of the abdominal wall at the puncture site (13% and 12% respectively). A third of the patients did not present any complications after the procedure (31%). Alteration in liver function tests (0.0001), decreased platelets and prolonged clotting times (0.001) presented a statistically significant relationship of greater probability of presenting some complication after the procedure, the bilirubin level did not present a statistically significant relationship for complications occur. (0.3). A third of the patients were indicated decompressive paracentesis (48%), of which a higher rate of complications was observed after the procedure (67%).

Conclusions: The most frequent complication was the persistent leakage of ascites fluid. Hypoalbuminemia, coagulopathy, and platelet alteration correlate with a higher risk of complications.

Key Words: Complications, paracentesis, liver cirrhosis

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P-125 REX SHUNT IN A DEVELOPING COUNTRY – IS IT POSSIBLE?

Caroline Montagner Dias, Melina Utz Melere, Carolina Soares da Silva, Luiza Salgado Nader, Cristine Suzana Trein, Alex Finger Horbe, Cristina Targa Ferreira, Riccardo Superina

[1] *Hospital da Criança Santo Antônio – Porto Alegre / Brazil*
[2] *The Ann & Robert H. Lurie Children's Hospital of Chicago / USA*

Introduction: Extrahepatic portal vein obstruction (EHPVO) is a frequent cause of noncirrhotic portal hypertension in children.

Objective: Describe the experience in the surgical treatment of EHPVO in children, in a developing country.

Methods: Retrospective case series study, with medical records review of patients with EHPVO, who underwent surgical treatment, by an experienced surgeon, between July 2016 and May 2019. Patient profile, laboratory test, images, liver histology, surgery performed, postoperative complications and shunt patency were analysed.

Results: 12 patients, median age of 4 years, umbilical catheterization was present in 8 patients (66,6%). Ten patients performed portography, and 60% had type A by Baveno VI criteria. Despite normal liver tests, liver biopsy revealed ductular proliferation in 83,3% of patients and mild portal fibrosis in 66,7%. Splenomegaly was present in 91,7% and thrombocytopenia in 83,3%. All patients had oesophageal varices and gastrointestinal bleeding occurred in 83,3%. Among the coagulation tests, the deficiency of C and S proteins is noteworthy in most patients, with 72,3% and 63,6% respectively.

It was possible to perform meso-Rex bypass in 10 patients (83,3%); in the other 2 distal splenorenal shunt was performed. Early postoperative complications occurred in 58,3% of patients, the most common was ascites in 4 (33,3%), which resolved in less than 1 month. One patient developed shunt thrombosis in the first 7 days after surgery, not resolved with thrombectomy. In outpatient follow-up one patient developed thrombosis in the Rex shunt and another 4 had stenosis. All of them underwent to interventional radiology. Currently 8 of 10 meso-Rex patients (80%) have patent shunt.

Conclusion: Rex shunt is possible in developing countries with an experienced surgeon and multidisciplinary team.

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P-126 INTERPHASE HEPATITIS IN PRIMARY BILIARY CHOLANGITIS, SEVERITY FACTOR AND NO RESPONSE TO URSODEOXICOLIC ACID?

Felipe Ramírez[1], Alvaro Urzúa[1], Máximo Cattaneo[1], Pablo Roblero Juan[1], Jaime Poniachik[1]

[1] *Sección de Gastroenterología, Departamento de Medicina Interna, Hospital Clínico Universidad de Chile, Santiago, Chile*

Introduction: Primary biliary cholangitis (PBC) is a chronic cholestatic disease that can progress to cirrhosis. The presence of fibrosis represents a predictive factor of progression and failure of response to ursodeoxycholic acid (UDCA). Currently, liver biopsy is not required for its diagnosis, however the finding of interface hepatitis (IH) in the histology could have a prognostic role.

Objectives: To compare in patients with biopsied PBC the presence of fibrosis and response to UDCA (Barcelona, Mayo II and Paris II criteria) according to the presence or absence of IH.

Methods: Histological findings and clinical characteristics of patients with biopsied PBC were retrospectively analyzed, at the stage when it was necessary for the diagnosis or in case of subsequent diagnostic doubt, between 2013-2019. Patients meeting the Paris criteria for PBC/HAI overlap were excluded.

Results: 36 patients were identified: 94% women, mean age 53 years (32-68), ANA (+) in 77%, elevated IgG in 58%. 11/36 with HI

on biopsy. IH was associated with a greater presence of fibrosis (73% vs 36%; p <0.05) and higher ANA titers > 1/640 (50% vs 17%). In 24 patients, annual response to UDCA could be evaluated: 45% of the patients with IH met at least 2 response criteria vs 69% of the group without histological IH.

Conclusion: The presence of IH in PBC is associated with greater fibrosis and worse biochemical response. Liver biopsy may be necessary in patients who do not respond to UDCA due to suspected interface activity.

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P-127 HEPATITIS A WITH ACALCULOUS CHOLECYSTITIS, PLEURAL EFFUSION, PERICARDIAL EFFUSION AND ASCITIS

Aileen Mateo, Eliam Rivas

Department of Gastroenterology, CEDIMAT, Santo Domingo, Dominican Republic

Introduction: In developing countries, hepatitis A constitutes an important public health problem. It generally presents as a mild, self-limited disease, but occasionally it can present with infrequent clinical findings.

Case Presentation: 42-year-old female admitted for 7 days of abdominal pain in the right upper quadrant, general malaise, mild dyspnea and fever. With no known morbid history, she is a bodybuilder with frequent use of BCAAs, Glutamine, and occasional anabolic steroids (Oxalandrone, Boldedone, Methenolone). On physical examination, jaundice of the skin and mucous membranes, edema of the lower limbs and palpable spleen, pain on palpation in the right upper quadrant.

In laboratories Hemoglobin 13.3 g / dL; White blood cells: 5400 cells / mm3; Platelets 316 / mm3; AST 849 U / L; ALT 3152 U / L; Total bilirubin 11.1 mg / gL, GGT 1020 U / L; 491 U / L alkaline phosphatase; INR 1.5; Total proteins 5.6 g / dL; Albumin 2.6 g / dL. Nitrogen, electrolytes, ANA antinuclear antibody, lipase, HIV, HVC, HBsAg were within normal parameters, HAV IgM was positive, the serological analysis for E. Barr, Cytomegalovirus were negative. Chest X-ray showed mild bilateral pleural effusion. Liver Doppler showed inflammatory changes in the liver parenchyma, data of acalculous cholecystitis, moderate ascites and splenomegaly. An echocardiogram was performed that showed slight posterior pericardial effusion with a heart of normal morphology and function. The patient was managed with supportive and nutritional therapy, without progression of clinical symptoms, was discharged on the 8th day of admission and was seen for consultation 1 month later with image and laboratory control, with disappearance of cholecystitis, pleural and pericardial effusion and ascites, and decreased laboratory levels of the liver profile.

Conclusion: This is one of the few documented cases of hepatitis A with these complications, all found in the same patient, they have been described as rare forms of presentation in the course of hepatitis A.

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O-1 THE ROLE OF PNPLA3 AND TM6SF2 POLYMORPHISMS ON LIVER FIBROSIS AND METABOLIC ABNORMALITIES IN BRAZILIAN PATIENTS WITH CHRONIC HEPATITIS C

Arthur Ivan N. Oliveira[1], Fernanda M. Malta[1], Patricia Momoyo Y. Zitelli[1], Ana Paula M. Salles[1], Michele S. Gomes-Gouvea[1], Ana Catharina S. Nastri[2], Joao Renato R. Pinho[1], Flair J. Carrilho[1], Claudia P. Oliveira[1], Maria Cássia Mendes-Corrêa[2], Mario G. Pessoa[1], Daniel F. Mazo[1,3]

[1] *Division of Clinical Gastroenterology and Hepatology, LIM07, Department of Gastroenterology, University of São Paulo School of Medicine (FMUSP), Sao Paulo, Brazil. Av. Dr. Enéas de Carvalho Aguiar n° 255, Instituto Central, # 9159. ZIP code: 05403-900, São Paulo, Brazil*

[2] *Department of Infectious Diseases, University of São Paulo School of Medicine (FMUSP), São Paulo, Brazil, Av. Dr. Enéas de Carvalho Aguiar n° 255, ZIP code: 05403-900, São Paulo, Brazil*

[3] *Division of Gastroenterology (Gastrocentro), School of Medical Sciences, University of Campinas (UNICAMP), Campinas, Brazil, Rua Carlos Chagas n° 420. ZIP code: 13083-878, Campinas, Brazil*

Background: Despite the growing body of knowledge about TM6SF2 and PNPLA3 polymorphisms in non-alcoholic fatty liver disease, their influence in the spectrum of HCV liver disease is not yet fully defined. Besides that, admixed populations, such as Brazilians, were not included in most of the studies.

Objectives: Describe the prevalence of these polymorphisms in Brazilians with chronic hepatitis C, and to assess their association with liver fibrosis and other components of the metabolic syndrome.

Methods: This cross-sectional study enrolled 365 treatment-naïve patients with HCV and 134 healthy individuals. TM6SF2 (rs58542926 c.499C>T) and PNPLA3 (rs738409 c.444C>G) polymorphisms were evaluated regarding their association with clinical and laboratory data, histological liver steatosis and fibrosis, and with components of the metabolic syndrome.

Results: In HCV subjects, the frequencies of TM6SF2 CC and CT + TT were 89% and 11%, while PNPLA3 frequencies of CC and CG + GG were 51.4% and 48.6%. In the univariate logistic regression analysis, the TM6SF2 CT + TT genotype in HCV was associated with significant liver fibrosis (p = 0.047; OR:1.953; 95% CI:1.009-3.788) however it was not confirmed by multivariate analysis. In comparison to the CT + TT genotype, the TM6SF2 CC genotype in HCV was associated higher frequency of arterial hypertension (p = 0.032), obesity (p = 0.030), metabolic syndrome (p = 0.014) and lower total cholesterol levels (p=0.036). The PNPLA3 GG subjects had lower body mass index than CG/ CC individuals (p = 0.047). None of the polymorphisms, or their combinations, was independently associated with hepatic steatosis.

Conclusion: In this evaluation of an admixed HCV population, neither TM6SF2 nor PNPLA3 polymorphisms were independently associated with hepatic steatosis or fibrosis.

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O-2 ROLE OF IMMUNE CHECKPOINTS AND ACTIVATED HELPER AND CYTOTOXIC T-CELLS IN DRUG-INDUCED LIVER INJURY (DILI)

Alejandro Cueto-Sanchez[1], Judith Sanabria Cabrera[1,2], Mercedes Robles-Diaz[1,3], Aida Ortega-Alonso[1], Miren Garcia Cortes[1,3], Enrique del Campo-Herrera[1], Rocio Gonzalez-Grande[4], Miguel Jimenez-Perez[4], Francisco Ruiz-Cabello[5], M Isabel Lucena[1,2,3], Camilla Stephens[1,3], Raúl J Andrade[1,3]

[1] *Servicio de Farmacología Clínica and UGC Aparato Digestivo, Instituto de Investigación Biomédica de Málaga-Ibima, Hospital Universitario Virgen de la Victoria, Universidad de Málaga, Málaga, Spain*
[2] *Platform ISCIII for Clinical Research Clinical Trials UICEC-Ibima, Málaga, Spain*
[3] *Centro de Investigación Biomédica en Red en el Área Temática de Enfermedades Hepáticas y Digestivas (CIBEREHD), Madrid, Spain*
[4] *Servicio de Aparato Digestivo, IBIMA, Hospital Universitario Regional de Málaga, Málaga, Spain*
[5] *Servicio de Análisis Clínicos e Inmunología, UGC de Laboratorio Clínico, Hospital Universitario Virgen de las Nieves, Granada, Spain*

Introduction: Idiosyncratic DILI is a challenging condition, believed to involve the immune system. This hypothesis is supported by various identified HLA risk alleles.

Objectives: To evaluate a potential role of the immune system in DILI through leukocyte immunophenotyping.

Methods: Blood samples were collected from adjudicated DILI (n=12) and viral hepatitis (VH, 13) at day 1 (recognition), 7 and >30. A single blood sample was extracted from healthy liver controls (HLC, 54). Leukocyte populations and immune checkpoint expressions were determined based on cell surface receptors, except for CTLA-4 that was determined intracellularly, using multiparametric flow cytometry.

Results: No differences were detected in leukocytes, lymphocytes or neutrophils counts at day 1. However, DILI ($0.57 \times 10E09/L$, p=0.037) and HV ($1.41 \times 10E09/L$, p<0.0001) had increased monocyte levels than HLC ($0.35 \times 10E09/L$). At day 1 DILI presented higher levels of activated helper T-cells (CD4+/DR+) and activated cytotoxic T-cells (CD8+/DR+) than HLC (14%vs6.3%, p<0.0001; 31%vs15%, p=0.0003, respectively). The same trend was detected for VH. A strong correlation between activated CD4+ and CD8+ was found in DILI (r=0.85, p<0.001), but less in VH (r=0.58, p=0.0015). Regarding helper T-cell subpopulations, DILI had higher level of Th1 (52vs42%, p=0.0358), while VH had lower level of Th9 than HLC (13%vs18%, p=0.0112). Regarding immune checkpoint expressions on CD4+, DILI presented higher intracellular CTLA-4 level than HLC (28%vs18%, p=0.0192). Higher expression of checkpoint ligand PD-1L on monocytes was also found in DILI (5.3%vs3.4%, p=0.0452) and VH (9.1%vs3.4%, p<0.0001). The level of all leukocyte populations and checkpoint expressions in DILI and VH approached HLC levels in the later samples, except for CD28 and CD86 that are constitutively expressed.

Conclusion: Our findings suggest that an adaptive immune response is involved in DILI in which activated CD4+ and CD8+ play important roles. Increased expression of negative immune checkpoints and ligands reflects restoration of immune homeostasis. Funding:PI16/01748, PI19/00883, CIBERehd-ISCIII

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O-3 TRENDS IN DECEASED DONOR AND LIVING DONOR LIVER TRANSPLANTATION IN LATIN AMERICAN COUNTRIES DURING A DECADE (2010-2019) . THE ALEH SPECIAL INTEREST GROUP, INTERNATIONAL SURVEY 2020

Rodrigo Zapata[1], Graciela Castro[2], Josefina Pages[3], Cairo Fernando[4], Oscar Imventarza[5], Alejandra Villamil[6], Paulo Bittencourt[7], Leonardo Schiavon[8], Alfeu de Medeiros Fleck Jr[9], Ricardo Villarroel[10], Oscar Varas[11], Juan Carlos Restrepo[12], Adriana Varon[13], Marcia Samada[14], Antonio Enamorado[15], Chong Ricardo[16], Byron Abad[17], Alvaro UrzÚa[18], Rodrigo Wolff[19], Mario Uribe[20], Regina Ligorrea[21], Edgard Aguilera[22], Eira CERDA[23], Sergio Lopez[24], Marcos Girala[25], Martin Padilla[26], Marlene Perez[27], Victoria Mainardi[28], Solange Gerona[29]

[1] *Coordinator, Aleh Liver Transplant Sig. Unidad de Trasplante, Clinica Alemana/ Facultad de Medicina, Universidad Del Desarrollo, Santiago, Chile*
[2] *Co-coordinator, Aleh Liver Transplant Sig. Instituto Nacional de Ciencias Medicas Y Nutricion Salvador Zubiran Y Hospital Medica Sur, Ciudad de Mexico, Mexico*
[3] *Liver Transplant Unit, Hospital Universitario Austral, Universidad de Buenos Aires, Buenos Aires, Argentina*
[4] *Liver Transplant Unit, Hospital El Cruce, Hospital Britanico, Buenos Aires, Argentina*
[5] *Liver Transplant Unit, Hospital Argerich, Hospital Garrahan. Stalyc Representative, Buenos Aires, Argentina*
[6] *Liver Transplant Unit, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina*
[7] *Liver Unit, Hospital Portugues de Salvador, Bahi, Brazil*
[8] *Universidad Federal de Santa Catarin, Florianopolis, Santa Catarina, Brazil*
[9] *Liver Transplant Unit, Hospital Moinhos de Vento, Irmandade De Santa Casa de Misericordia de Porto Alegre, Porto Alegre, Brazil*
[10] *Hospital San Juan De Dios, Santa Cruz De La Sierra, Bolivia*
[11] *Centro de Enfermedades Digestivas Varas Castrillo, Tarija, Bolivia*
[12] *Liver Transplant Unit, Hospital Pablo Tobon Uribe, Medellin, Colombia*
[13] *Liver Unit, Fundacion Cardioinfantil, Bogota, Colombia*
[14] *Centro de Investigaciones Medico-quirurgicas, La Habana, Cuba*
[15] *Programa De Trasplantes, La Habana, Cuba*
[16] *Liver Transplant Unit, Hospital de Especialidades Carlos Andrade Marin, Quito Ecuador*
[17] *Transplant Coordinator, Hospital de Especialidades Arlos Andrade Marin, Quito, Ecuador*
[18] *Liver Transplant Unit, Hospital Clinico, Universidad De Chile Y Clinica Santa Maria, Santiago, Chile*
[19] *Liver Transplant Unit, P. Universidad Catolica de Chile, Santiago, Chile*
[20] *Liver Transplant Unit, Hospital Salvador, Hospital Calvo Mackena y Clinica Las Condes. Stalyc Representative Santiago, Chile*
[21] *Hospital San Juan de Dios, Ciudad de Guatemala, Guatemala*
[22] *Hospital Clinica Viera, Tegucigalpa, Honduras*
[23] *Unidad de Trasplante Hepatico, Hospital Central Militar, Ciudad De Mexico, Mexico*
[24] *Hospital Escuale Dr. Roberto Calderon, Managua, Nicaragua*
[25] *Universidad Nacional de Asuncion, Asuncion, Paraguay*

[26] *Department of Transplantation, Hospital Nacional Guillermo Almenara y Universidad Nacional Mayor de San Marcos, Lima Peru*
[27] *Liver Transplant Unit, Hospital General de La Plaza de La Salud, Santo Domingo, Republica Dominicana*
[28] *Liver Transplant Unit, Hospital Central de Las Fuerzas Armadas, Montevideo, Uruguay*
[29] *Liver Transplant Unit, Hospital de Clinicas y Hospital Central de Las Fuerzas Armadas, Montevideo, Uruguay*

Background: Brazilian public health system currently provides universal free all oral direct-acting antiviral (DAA) therapy for patients with hepatitis C virus (HCV) infection. Despite high rates of sustained virological response (SVR), patients with cirrhosis remain at risk for hepatocellular carcinoma (HCC).

Objectives: The aim of this study was to investigate incidence, risk factors and tumor pattern at presentation in a cohort of Brazilian HCV-related cirrhotic patients treated with DAAs.

Methods: This prospective cohort study included patients with HCV-related cirrhosis treated with DAAs and followed for at least 24 weeks after therapy at the Viral Hepatitis Outpatient Clinic of Hospital de Clinicas de Porto Alegre, Brazil, between August 2016 and November 2017. Ultrasound screening was performed within 24 weeks before DAA therapy and patients with presumed past or current HCC were excluded. Primary outcome was HCC incidence. Secondary outcomes were risk factors for HCC ocurrence and tumor pattern at presentation. Multivariate analysis was used to identify independent variables associated with HCC development.

Results: A total of 234 patients with HCV cirrhosis were included. Fifty-six percent were males with a mean age of 61.2±10.9 years. Overall SVR was 97.4%. Child-Turcotte-Pugh (CTP) A, B and C at baseline was found, respectively, in 89.3%, 9.4% and 1,3%. Mean Model for End Stage Liver Disease (MELD) score was 9.17 ± 2.82. Esophageal varices were found in 43.6% of the patients. Type 2 diabetes was present in 18.8%. *De novo* HCC was diagnosed in 9% (21/234) of the patients during follow-up. Tumor pattern at presentation according to BCLC staging was 0, A, B, C and D in 19,1%, 47.6%, 4.8%, 28.6% and 0%, respectively. Multivariate analysis showed significant relative risk (RR) for HCC occurrence associated with the following variables: baseline MELD score ≥10 (RR: 1.8; p=0.05); absence of SVR (RR: 6.9; p=0.04); baseline platelet count $<120 \times 10^9$/L (RR: 5.0; p=0.04) and baseline albumin level <3.5 mg/dL (RR: 4.6.

Conclusions: A high incidence of HCC was found after DAA therapy compared to the literature, particularly among patients with more advanced cirrhosis, particularly those with baseline albumin levels < 3.5 g/dL plus platelets $< 120 \times 10^9$/L. Absence of SVR was also significantly associated with HCC development. The majority of patients presented with very early (BCLC 0) or early (BCLC A) HCC, although a significant proportion showed advanced stage (BCLC C) at presentation.

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O-4 IMPACT OF BRIDGE THERAPY FOR HEPATOCELLULAR CARCINOMA IN PATIENTS SUBMITTED TO LIVER TRANSPLANTATION - BRAZILIAN MULTICENTER STUDY

Julia Fadini Margon[1,2], Aline Lopes Chagas[1,2], Angelo A. Mattos[3], Márcio Augusto Diniz[4], Guilherme Eduardo Gonçalves Felga[5], Ilka de Fátima Santana Ferreira Boin[6], Rita de Cássia Martins Alves da Silva[7], Renato Ferreira da Silva[8], José Huygens Parente Garcia[9], Agnaldo Soares Lima[10], Júlio Cezar Uili Coelho[11], Paulo Lisboa Bittencourt[12], Venâncio Avancini Ferreira Alves[2,13], Luiz Augusto Carneiro D'Albuquerque[2,14], Flair José Carrilho[1,2], Brazilian HCC Study Group

[1] *Division of Clinical Gastroenterology and Hepatology, Hospital das Clínicas, Department of Gastroenterology, University of São Paulo School of Medicine, São Paulo, Brazil*
[2] *São Paulo Clinicas Liver Cancer Group, São Paulo, Brazil*
[3] *Department of Gastroenterology and Hepatology, Fundação Universidade Federal de Ciências da Saúde de Porto Alegre, Porto Alegre, Brazil*
[4] *Biostatistics and Bioinformatics Research Center, Cedars Sinai Medical Center, Los Angeles, United States*
[5] *Liver Transplantation Unit, Hospital Israelita Albert Einstein, São Paulo, Brazil*
[6] *Liver Transplantation Unit, State University of Campinas, Campinas, Brazil*
[7] *Departamento de Clínica Médica e Unidade de Transplante de Fígado, Hospital de Base — FUNFARME, Faculdade de Medicina de São José do Rio Preto — FAMERP, São José do Rio Preto, Brazil*
[8] *Departamento de Cirugía e Unidade de Transplante de Fígado, Hospital de Base — FUNFARME, Faculdade de Medicina de São José do Rio Preto — FAMERP, São José do Rio Preto, Brazil*
[9] *Ceará Unit of Liver Transplantation, Department of Surgery and Liver Transplantation, Federal University of Ceará, Fortaleza, Brazil*
[10] *Federal University of Minas Gerais School of Medicine, Belo Horizonte*
[11] *Federal University of Parana, Surgery Department, Curitiba, Brazil*
[12] *Department of Gastroenterology and Hepatology, Portuguese Hospital of Salvador, Bahia, Brazil*
[13] *Department of Pathology, University of São Paulo School of Medicine, São Paulo, Brazil*
[14] *Digestive Organs Transplant Division. Hospital das Cínicas, Department of Gastroenterology, University of São Paulo School of Medicine, São Paulo, Brazil*

Background: Hepatocellular carcinoma (HCC) is one of the main indications for liver transplantation (LT). Bridge therapy (BT) is recommended when waiting time on transplant list is longer than six months to avoid tumor progression and dropout. Response to locoregional treatment has been considered as a good prognostic parameter in post-LT, however, its role still needs to be defined.

Aims: To evaluate the role of BT for HCC on survival and post-LT tumor recurrence.

Methods: Brazilian multicenter retrospective cohort study in HCC patients submitted to LT with clinical and radiological data analysis. Data related to HCC pre-LT treatment, type of treatment and the final response according to mRECIST criteria in the last pre-LT image exam were analyzed. Survival curves were presented using the Kaplan-Meier and compared using the log-rank test.

Results: 1,119 patients were included. 81% were males and mean age at LT was 58 ± 8.2 years. At HCC diagnosis, 85% were within Milan criteria (MC) by imaging studies and 67%, underwent BT prior to LT. TACE/TAE were performed in 80%, PEI 9%, RFA 3%, surgery 1% and combined therapy 7%. According to mRECIST, 37% showed

complete response (CR), 38% partial response (PR), 12% stable disease (SD) and 13% progressive disease (PD) after BT. The overall survival (OS) was 63% in 5 years, with a mean follow-up of 28 months. The post-LT tumor recurrence was 8%. There was no difference in the risk of post-LT tumor recurrence or survival among patients who underwent BT or not or between the various types of treatment performed. However, patients who have CR to BT had a higher recurrence-free survival compared to patients with PR, SD or PD (p = 0.019).

Conclusions: This study demonstrated the role of BT in LT, since patients with complete response, had a lower risk of post-transplant tumor recurrence.

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O-5 PROGNOSTIC IMPORTANCE OF TRANSIENT ELASTOGRAPHY (FIBROSCAN®) FOR MORTALITY AND CARDIOVASCULAR OUTCOMES IN PATIENTS WITH TYPE 2 DIABETES

Nathalie C. Leite, Cristiane A. Villela-Nogueira, Claudia R.L. Cardoso, Gil F. Salles

Department of Internal Medicine, University Hospital Clementino Fraga Filho, School of Medicine, Universidade Federal do Rio de Janeiro

Background and Aims: It remains unknown whether advanced liver fibrosis is associated with a higher risk of cardiovascular complications in patients with type 2 diabetes mellitus (T2DM) and non-alcoholic fatty liver disease (NAFLD).The aim was to evaluate the prognostic value of transient elastography (TE) by Fibroscan® as a predictor of mortality and cardiovascular outcomes in T2DM.

Methods: On a prospective study, T2DM patients with no other cause of liver disease except NAFLD underwent TE at baseline and were followed-up for the evaluation of outcomes, including all-cause mortality and occurrence of any cardiovascular event. The associations between TE scores and outcomes were evaluated by Cox regressions adjusted for other potential confounders. Liver stiffness measurement (LSM) and Controlled attenuation parameter (CAP) were evaluated as continuous variables and categorized as advanced fibrosis if LSM >7.9 or 7.2 kPa (M-XL probe) and severe steatosis if CAP>296 dB/m.

Results: 403 T2DM patients were included (64% female, mean age of 64±10 yrs) and followed for 94 months until March 2020. 395 (98%) of the TE examinations were successful. At baseline, 104 (26%) individuals had advanced fibrosis and 150(38%) had severe steatosis. During follow-up, 55(14%) patients died, 55(14%) had cardiovascular events, including 35 with coronary artery disease (CAD). As continuous variables, LSM (↑1 kPa) predicted all-cause mortality (HR 1.05, 95%CI 1.01-1.08,p=0.020) and CAP (↑20 dB/m) was associated with a significant reduced risk of cardiovascular mortality (HR 0.80,95%CI 0.66-0.96,p=0.014) and CAD (HR 0.81,95%CI 0.70-0.95,p=0.007). Increased LSM was associated with a significant 98% excess mortality risk (p=0.025), whereas a higher CAP was associated with a borderline 49% reduced risk (p=0.08).

Conclusion: Advanced fibrosis is associated with all-cause mortality, independent of other potential risk factors. Severe steatosis could have some effect in the reduction of cardiovascular mortality and CAD events. Transient elastography may be useful to improve stratification risk of T2DM patients.

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O-6 NON-INVASIVE ASSESSMENT OS HEPATIC FIBROSIS BEFORE AND AFTER HCV CURE AND CORRELATION WITH CLINICAL OUTCOMES

T.G. Ragazzo[1], G. Garcia-Tsao[2], D.F. Mazo[1], P.M. Ziteli[1], C.P. Oliveira[1], J.M. Singer[3], F.J. Carrilho[1], M.G. Pessoa[1]

[1] *Division of Gastroenterology and Hepatology, University of São Paulo, Brazil*
[2] *Digestive Diseases Section, Yale University, New Haven, Connecticut, USA*
[3] *Department of Statistics, Institute of Mathematics and Statistics, University of São Paulo, Brazil*

Introduction: Liver stiffness measurement (LSM) is a widely used non-invasive test to assess the stage of liver fibrosis in chronic liver diseases, particularly in HCV but its clinical usefulness after viral elimination is uncertain.

Objectives: To identify the course of liver fibrosis by LSM 3 years after viral elimination in patients with HCV and its association with clinically relevant outcomes: progression to advanced liver fibrosis/cirrhosis (≥F3) in those with F<3 at baseline, and decompensation (ascites, variceal hemorrhage, encephalopathy) or HCC in those with F3/F4 or F4 at baseline.

Methods: LSM were performed by Fibroscan in 228 patients (32 stage F0-1; 47 F2; 36 F3; 23 F3-4; 90 F4 as determined by LS of <7.1; 7.2-9.5; 9.6-12.5; 12.6-14.5 and >14.5 KPa respectively) prior to treatment and at 6 months, 1, 2 and 3 years after cure.

Results: The course of changes in LSM are depicted in figure1. There was no progression to F≥3 in any of the patients at stages F0-1, F2. Among patients with F≥3, 23 patients developed decompensation (1 F3, 2 F3/F4 and 20 F4) and 9 developed HCC (all F4). Probability of decompensation is lower in patients in whom LSM decreases at 6 months, while it is higher in those in whom LSM increases, however CI are large (Table).

Conclusion: While in patients with F0-1, F2 prior to antiviral therapy, there is no need to follow LSM as progression does not occur, LSM should be continued in those with F3/F4 or F4 (>12.5 kPa). Changes in LSM at 6 months can help determine probability of outcomes but larger studies combining other parameters are necessary to improve predictive value.

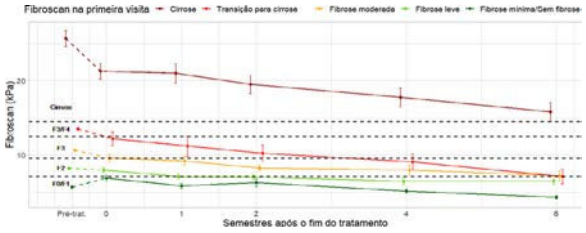

Table 1
Probability of decompensation/HCC and 95% confidence intervals (CI) by percent change in LSM at 6 months

Relative variation of Fibroscan (1ª and 3ª visit)	PointEstimate	CI(95%)
-40%	0.47	[0.23; 0.95]
-30%	0.57	[0.34; 0.97]
-10%	0.83	[0.69; 0.99]
10%	1.21	[1.01; 1.44]
30%	1.76	[1.04; 2.98]
40%	2.12	[1.05; 4.29]

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O-7 PREVALENCE, CHARACTERIZATION AND SURVIVAL OF ACUTE-ON-CHRONIC LIVER FAILURE IN A CHILEAN UNIVERSITY HOSPITAL

Francisco Idalsoaga[1], Francisco Valenzuela[1], Antonio Díaz Luis[1], Franco Manzur[2], Victor Meza[2], Joaquin Sotomayor[2], Maximiliano Schalper[2], Franco Chianale[2], Hernan Rodríguez[2], Juan Arab Pablo[1]

[1] *Departamento of Gastroenterología, Escuela de Medicina, Pontificia Universidad Católica de Chile, Santiago, Chile*
[2] *Escuela de Medicina, Pontificia Universidad Católica de Chile, Santiago, Chile*

Background: Acute-on-chronic liver failure (ACLF) is a serious clinical entity, with no previous reports in Chile.

Aim: To characterize patients with ACLF in a Chilean University Hospital, identifying triggers, organ failure and survival at 30, 90, 180 days, compared to patients with decompensated cirrhosis without ACLF.

Methods: Retrospective cohort study of decompensated cirrhotic patients hospitalized in a chilean University Hospital between 2017-2019.

Results: 334 patients were included, 73 (22%) presented ACLF (33% ACLF-1, 30% ACLF-2, 37% ACLF-3); 16.4% underwent liver transplantation. Patients with ACLF were younger, and had higher MELD-Na and APACHE II on admission. The most common triggers in both groups were infections (42.4%), gastrointestinal bleeding (23.2%) and alcohol intake (31.3%). The main organ failures were kidney (60.2%) and brain (49.3%). All organ failures were more frequent in ACLF-3, except renal failure (greater in ACLF-1). Survival at 180 days was 74% in patients without ACLF and 58.3% in ACLF (p=0.004). Mortality was significantly higher in ACLF-2 and ACLF-3, when compared with patients without ACLF (HR 2.3 and 2.99, respectively; p<0.05). Transplant-free survival in cirrhotics without ACLF was 72.5% versus 43.1% with ACLF (p<0.001). The risk of mortality or transplantation was higher in ACLF-2 and ACLF-3, in contrast to patients without ACLF (HR 2.19 and 4.61, respectively; p <0.05).

Conclusions: ACLF is an entity of younger patients, with lower global and transplantation-free survival at 180 days and multiple organ failure compared to decompensated cirrhotics without ACLF.

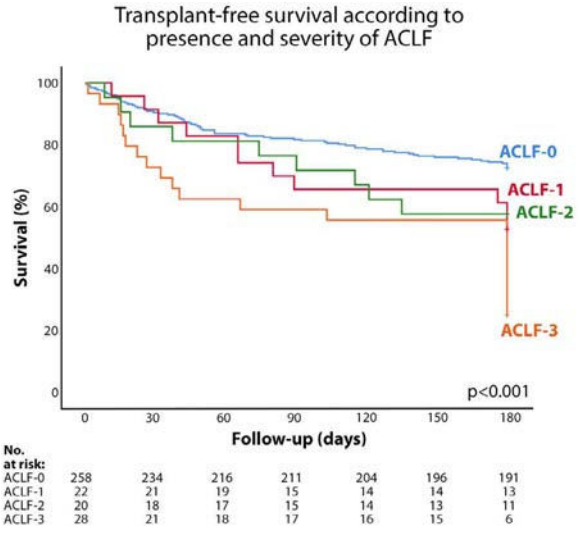

Figure.- Cumulative transplant-free survival according to the presence of ACLF and severity.

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O-8 THE IMPORTANCE OF LYSOSOMAL ACID LIPASE DEFICIENCY IN THE ETIOLOGICAL INVESTIGATION OF CRYPTOGENIC LIVER DISEASE IN ADULTS: A MULTICENTER STUDY

Aline Coelho Rocha Candolo[1], Patricia Momoyo Zitelli[1], Daniel Ferraz de Campos Mazo[1,2], Marlone Cunha-Silva[2], Raquel Dias Greca[2], Claudia Pinto de Oliveira[1], Roberta Chaves Araújo[3], Amanda Sacha Paulino Tolentino Alustau[3], Claudia Alves Couto[4], Mateus Jorge Nardelli[4], Júlio M. Singer[5], Roque Gabriel Rezende de Lima[1], Alberto Queiroz Farias[1], Flair José Carrilho[1], Mário Guimarães Pessoa[1]

[1] *Division of Clinical Gastroenterology and Hepatology, Department of Gastroenterology, University of São Paulo School of Medicine (FMUSP), Sao Paulo, Brazil*
[2] *Division of Gastroenterology (Gastrocentro), School of Medical Sciences, University of Campinas (UNICAMP), Campinas, Brazil*
[3] *Division of Gastroenterology, Hospital of the Clinics of the Faculty of Medicine of Ribeirão Preto, University of São Paulo (FMRP-USP), Ribeirao Preto, Brazil*
[4] *Department of Internal Medicine, Federal University of Minas Gerais (UFMG), Belo Horizonte, Brazil*
[5] *Institute of Mathematics and Statistics, University of Sao Paulo (USP), São Paulo, Brazil*

Background: Lysosomal acid lipase deficiency (LAL-D) is a rare genetic disease associated with lipid metabolism deregulation leading to atherosclerosis, dyslipidemia, and hepatic steatosis, with potential progression to cirrhosis. Investigation of LAL-D in patients with chronic liver disease is not routinely performed in most centers.

Aim: The aim of this study was to evaluate whether it is worthwhile to investigate LAL-D in patients with liver disease of unknown etiology, and if there is any particular population that this search should be focused.

Methods: This was a multicenter cross-sectional study in 295 patients followed with presumed cryptogenic liver disease from four tertiary centers in Brazil. Clinical, demographic and laboratory data from participants were assessed, with the exclusion of all known causes of liver disease. All patients were submitted to the investigation of LAL enzyme activity. The exams were collected on dried blood spot (DBS).

Results: A total of 135 patients were included in the study. Three patients (2.22%) presented values of LAL below the reference limit, compatible with LAL-D. The mean age of these patients was 43.9± 10.1 years, of which 2 were females. The mean BMI was 24.3±0.7 and mean serum glycemia was 89.7±3.2 mg/dL. The mean serum HDL and triglycerides were 21.7±3.2 mg/dL and 206.7±25.5 mg/dL, respectively.

Conclusion: Despite being a rare disease, also in our study population, LAL-D investigation may be considered in those individuals without overweight with reduced serum HDL and elevated triglycerides levels and chronic liver disease of unknown etiology.

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O-9 COMPARISON OF THE PERFORMANCE OF DIFFERENT SCORES FOR THE PREDICTION OF IN-HOSPITAL MORTALITY IN PATIENTS WITH CIRRHOSIS AND BACTERIAL INFECTIONS

Agustina Martinez Garmendia[1], Maria Nelly Gutierrez Acevedo[2], Sabrina Barbero[3],

Lorena del Carmen Notari[3], Marina Agozino[4], Jose Luis Fernandez[4], Maria Margarita Anders[5], Nadia Grigera[5], Florencia Antinucci[5], Orlando Orozco Ganem[5], Maria Dolores Murga[6], Daniea Perez[6], Ana Palazzo[6], Liria Martinez Rejtman[7], Ivonne Giselle Duarte[8], Julio Vorobioff[9], Victoria Trevizan[9], Sofía Bulaty[9], Fernando Bessone[9], José Daniel Bosia[9], Silvia Mabel Borzi[10], Teodoro E. Stieben[11], Adriano Masola[11], Sebastian Eduardo Ferretti[12], Diego Arufe[13], Ezequiel Demirdjian[13], Maria Pia Raffa[13], Cintia Elizabet Vazquez[14], Pablo Ruiz[14], José Emanuel Martínez[15], Hugo Fainboim[16], Mirta Peralta[16], Leandro Alfredo Heffner[17], Andrea Odzak[17], Melisa Dirchwolf[18], Astrid Smud[19], Manuel Mendizabal[20], Carla Bellizzi[21], Diego Giunta[22], Marcelo Valverde[23,24], Martin Elizondo[23,24], Ezequiel Mauro[1], Ana Martinez[21], Jesica Tomatis[18], Andres Bruno[17], Agñel Ramos[12], Josefina Pages[20], Silvina Tevez[4], Salvatore Piano[25], Adrian Gadano[1,22], Sebastián Marciano[1,22]

[1] *Hospital Italiano de Buenos Aires, Liver Unit, CABA, Argentina*
[2] *Clinica Chapelco, San Martin de los Andes, Argentina*
[3] *Hospital Churruca Visca, CABA, Argentina, San Martin de los Andes, Argentina*
[4] *Sanatorio Güemes, CABA, Argentina*
[5] *Hospital Aleman, CABA, Argentina*
[6] *Hospital A.C. Padilla, San Miguel de Tucuman, Argentina*
[7] *Hospital T J Schestakow, Mendoza, Argentina*
[8] *Hospital 4 de Junio, Saenz Peña, Argentina*
[9] *Hospital provincial del Centenario, Rosario, Argentina*
[10] *Hospital Rossi, La Plata, Argentina*
[11] *Hospital San Martín, Paraná, Argentina*
[12] *Sanatorio Parque, Rosario, Argentina*
[13] *Sanatorio Sagrado Corazon, CABA, Argentina*
[14] *Hospital Regional de Rio Gallegos, Río Gallegos, Argentina*
[15] *Sanatorio Boratti, Posadas, Argentina*
[16] *Hospital Muñiz, CABA, Argentina*
[17] *Hospital Argerich, CABA, Argentina*
[18] *Hospital Privado de Rosario, Rosario, Argentina*
[19] *Hospital Italiano de Buenos Aires, Infectious Diseases Section, ABH, CABA, Argentina*
[20] *Hospital Universitario Austral, Pilar, Argentina*
[21] *Hospital Fernández, CABA, Argentina*
[22] *Hospital Italiano de Buenos Aires, Department of Research, CABA, Argentina*
[23] *Hospital de Clinicas, Montevideo, Uruguay*
[24] *Hospital Militar, Montevideo, Uruguay*
[25] *Unit of Internal Medicine and Hepatology, Department of Medicine, University of Padova, Padova, Italy*

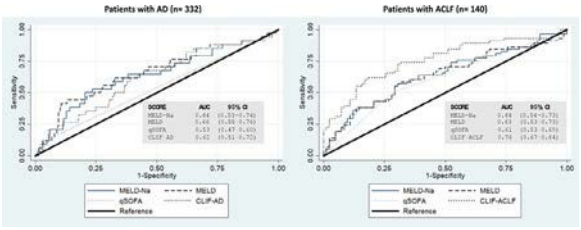
Background: Predicting short-term mortality in patients with cirrhosis and bacterial infections is challenging.

Aims: To compare the performance of various scores in predicting in-hospital mortality in this population.

Methods: We performed an analysis of the multicenter prospective cohort study of patients with cirrhosis with bacterial infections throughout Argentina and Uruguay (clinicatrials.gov.NCT03919032). Patients were classified according to the CLIF criteria as having ACLF or mere acute decompensation (AD). We evaluated the performance of scores of liver disease and infection severity in predicting in-hospital mortality. MELD, MELD-Na, and Quick SOFA (qSOFA) were computed in all patients. CLIF-AD was only computed in patients without ACLF, and CLIF-ACLF only in patients with ACLF. We plotted ROC curves and estimated their area under the curve (AUROC).

Results: We included 472 patients: 66% male, mean age 57 ± 12 years. Most frequent infections: SBP (30%) and urinary tract infection (25%). Overall, 332 (70%) patients had acute decompensation, and 140 (30%) ACLF. In-hospital mortality rate was 19%: 41% in patients with ACLF vs 10% in patients with AD (p<0,001). When we evaluated the AUROC of the entire cohort, MELD and MELD-Na performed similarly: 0.74 (95% CI 0.68-0.81) and 0.74 (95% CI 0.67-0.80), respectively; whereas qSOFA showed the lowest performance: 0.62 (95% CI 0.57-0.68). When evaluating only patients with ACLF, CLIF-ACLF performed significantly better than the other ones: AUROC 0.76 (95% CI 0.67-0.84, p =0.01). All scores performed poorly in patients with AD (Figure).

Conclusion: The best tool to predict in-hospital mortality in patients with infection-related ACLF was the CLIF-ACLF score. In patients with infection-related AD, all scores performed poorly. Evaluation of the scores performance is of paramount importance in different regions and for each complication of cirrhosis separately.



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O-10 PRIMARY BILIARY CHOLANGITIS PATIENTS DIAGNOSED BY DIFFERENT COMBINATIONS OF THE DIAGNOSTIC CRITERIA PRESENT CLINICAL AND LABORATORY PECULIARITIES

Guilherme G.L. Cançado[1,2], Eduardo L.R. Cançado[3], Maria L.G. Ferraz[4], Cristiane A. Villela-Nogueira[5], Debora R.B. Terrabuio[3], Michelle H. Braga[3], Mateus J. Nardelli[1], Luciana C. Faria[1], Nathalia M.F. GOMES[4], ELZE M.G. Oliveira[4], Vivian Rotman[5], Maria Beatriz Oliveira[6], Simone M.C.F. Cunha[7], Daniel F. Mazo[8], Liliana S.C. Mendes[9], Claudia A.P. Ivantes[10], Valéria Faborges[11,12], Fabio H.L. Pace[13], Mario G. Pessoa[3], Izabelle V. Signorelli[14], Gabriela P. Coral[15], Paulo L. Bittencourt[16,17], Cynthia Levy[18], Cláudia A. Couto[1], Members of the Brazilian Cholestasis Study Group Consortium[1]

[1] *Hospital das Clínicas da Universidade Federal de Minas Gerais, Belo Horizonte, Brazil*
[2] *Hospital da Polícia Militar de Minas Gerais, Belo Horizonte, Brazil*
[3] *Departamento de Gastroenterologia, Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil*
[4] *Disciplina de Gastroenterologia, Universidade Federal de São Paulo, São Paulo, Brazil*
[5] *Hospital Universitário Clementino Fraga Filho e Departamento de Clínica Médica da Faculdade de*

Medicina, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil
[6] *Ambulatório Municipal de Hepatites Virais de São José dos Campos, São José dos Campos, Brazil*
[7] *Hospital Universitário Professor Edgard Santos, Universidade Federal da Bahia, Salvador, Brazil*
[8] *Divisão de Gastroenterologia (Gastrocentro), Faculdade de Ciências Médicas, Universidade Estadual de Campinas, Campinas, São Paulo, Brazil*
[9] *Hospital de Base do Distrito Federal, Brasília, Brazil*
[10] *Serviço de Gastroenterologia, Hepatologia e Transplante Hepático, Hospital Nossa Senhora das Graças, Curitiba, Brazil*
[11] *Instituto de Gastroenterologia, Endoscopia e Proctologia, Uberlândia, Brazil*
[12] *Universidade Federal de Uberlândia, Uberlândia, Brazil*
[13] *Serviço de Gastroenterologia e Hepatologia, Universidade Federal de Juiz de Fora, Juiz de Fora, Minas Gerais, Brazil*
[14] *Hospital Universitário Cassiano Antônio Moraes, Universidade Federal do Espírito Santo, Vitória, Brazil*
[15] *Irmandade da Santa Casa de Misericórdia de Porto Alegre, Porto Alegre, Brazil*
[16] *Hospital Português, Salvador, Brazil*
[17] *Escola Bahiana de Medicina e Saúde Pública*
[18] *Division of Digestive Health and Liver Diseases, University of Miami Miller School of Medicine, Miami, Florida, United States of America*

Introduction: Primary biliary cholangitis (PBC) diagnosis is based on international criteria, which requires two of the following: (i) elevated alkaline phosphatase (AP), (ii) anti-mitochondrial antibody (AMA) and (iii) liver biopsy (BX) suggestive of PBC. It is still unclear if patients diagnosed by different criteria combinations present peculiarities, especially in highly-admixed populations.

Objectives: To investigate if patients diagnosed with PBC by different combinations of validated criteria present clinical or laboratory particularities.

Methods: The Brazilian Cholestasis Study Group database was reviewed to compare clinical, biochemical and histological characteristics of PBC between four groups diagnosed by: (1) AP ≥2x upper limit of normality (ULN) + presence of AMA, (2) AP ≥2x ULN + BX suggestive of PBC, (3) presence of AMA + BX suggestive of PBC and (4) all criteria.

Results: 482 patients with PBC were included (**Table 1**). Group-1 presented with higher levels of IgG, lower frequency of arterial hypertension (AH) and lower response to ursodeoxycholic acid (UDCA), while Group-2 had lower: age at diagnosis and HDL-C levels. Group-3 had higher: age at diagnosis, frequency of neoplasms, AH and response to UDCA; and lower: frequency of pruritus and jaundice, levels of aminotransferases, GGT and bilirubin, advanced liver disease and esophageal varices. Group-4 showed higher frequency of symptoms at presentation, especially pruritus.

Conclusion: PBC patients diagnosed by different combinations of established criteria may present singular features that can possibly impact in disease presentation and progression.

Table
Comparison of PBC Features according to Different Combinations of Diagnostic Criteria

Variables	Diagnostic Criteria				P-value
	Elevated AP + AMA positive	Elevated AP + BX positive	AMA positive + BX positive	All criteria	
Female sex	72 (96.0)	36 (94.7)	56 (94.9)	96 (96.0)	0.954[1]
Age (yr.)	63.1 ± 12.3	54.5 ± 13.9	63.9 ± 11.2	60.1 ± 11.3	**0.001**[3]
Age at diagnosis (yr.)	54.5 ± 13.9	48.6 ± 14.1*	57.6 ± 11.5*	52.3 ± 10.2	**0.023**[3]
Symptoms	54 (72.0)	26 (70.3)	25 (42.4)*	76 (76.0)*	**<0.001**[2]
Pruritus	38 (50.7)	20 (54.1)	16 (27.1)*	63 (63.0)*	**<0.001**[2]
Fatigue	27 (36.0)	17 (45.9)	15 (25.4)	42 (42.0)	0.155[1]
Jaundice	15 (20.0)	12 (31.6)	5 (8.5)*	28 (28.0)	**0.014**[2]
	25 (33.3)	15 (39.5)	29 (49.2)	40 (40.0)	0.327[2]
Extrahepatic manifestation					
Thyroiditis	12 (16.0)	6 (15.8)	16 (27.1)	19 (19.0)	0.374[2]
Rheumatoid Arthritis	4 (5.3)	2 (5.3)	4 (6.8)	3 (3.0)	0.676[1]
Sjögren Syndrome	4 (5.3)	4 (10.5)	5 (8.5)	12 (12.0)	0.494[2]
Neoplasms	2 (2.7)	3 (7.9)	9 (15.5)*	6 (6.0)	**0.046**[1]
Comorbidities					
Diabetes	11 (14.7)	7 (18.4)	5 (8.5)	11 (11.0)	0.454[2]
Arterial Hypertension	12 (16.0)*	10 (26.3)	22 (37.3)*	24 (24.0)	**0.044**[2]
Dyslipidemia	21 (28.0)	7 (18.9)	13 (22.0)	32 (32.0)	0.351[2]
Obesity	8 (10.7)	2 (5.3)	7 (11.9)	15 (15.2)	0.437[2]
Advanced Fibrosis	13 (44.8)	16 (48.5)	13 (23.6)*	41 (46.6)	**0.030**[2]
Laboratory					
AST/ULN	2.7 (1.8-3.6)	2.0 (1.5-3.5)	1.1 (0.8-1.6)	2.4 (1.6-4.4)	**<0.001**[4]
ALT/ULN	2.4 (1.3-4.4)	2.4 (1.5-3.8)	1.3 (0.9-1.9)	2.4 (1.6-4.2)	**<0.001**[4]
GGT/ULN	11.0 (5.8-21.7)	10.3 (5.8-17.9)	3.6 (1.7-7.9)	9.3 (5.1-15.8)	**<0.001**[4]
Total bilirubin (mg/dL)	1.1 (0.7-2.1)	1.2 (0.7-2.0)	0.7 (0.5-1.0)	1.0 (0.6-1.7)	**<0.001**[4]
Conjugated bilirubin (mg/dL)	0.7 (0.3-1.3)	0.6 (0.4-1.0)	0.3 (0.2-0.5)	0.5 (0.3-0.9)	**<0.001**[4]
Albumin (g/dL)	4.0 (3.5-4.2)	3.9 (3.6-4.2)	4.0 (3.8-4.3)	3.9 (3.5-4.2)	0.059[4]
Platelets count (10^9/L)	205 (145-276)	191 (112-265)	230 (200-276)	220 (168-272)	0.110[4]
Total cholesterol (mg/dL)	224 (191-265)	220 (191-251)	207 (185-231)	216 (191-267)	0.242[4]
HDL-cholesterol (mg/dL)	65 (48-82)	45 (36-71)	57 (50-69)	62 (48-80)	**0.012**[4]
Triglycerides (mg/dL)	111 (82-141)	92 (60-135)	111 (87-136)	111 (78-165)	0.493[4]
ANA ≥ 1:40	47 (66.2)	19 (52.8)	37 (71.2)	69 (70.4)	0.238[2]
ASMA ≥ 1:40	4 (6.5)	2 (6.1)	2 (4.2)	4 (4.6)	0.907[1]
IgG (mg/dL)	1702 (1344-1921)	1450 (1202-1755)	1421 (1218-1638)	1321 (1061-2248)	**0.032**[4]
IgM (mg/dL)	324 (210-478)	188 (123-387)	314 (191-454)	334 (205-438)	0.156[4]
Response Criteria					
Toronto	16 (40.0)*	11 (50.0)	24 (82.8)*	34 (52.3)	**0.005**[2]
Barcelona	30 (66.7)	19 (63.3)	18 (48.6)	48 (64.0)	0.344[2]
Paris-1	22 (48.9)	16 (55.2)	26 (70.3)	38 (50.7)	0.193[2]
Paris-2	9 (20.0)*	10 (34.5)	24 (64.9)*	21 (28.0)	**<0.001**[2]
POISE Trial	29 (64.4)	18 (60.0)	24 (64.9)	46 (61.3)	0.963[2]
Rotterdam	27 (61.4)	12 (48.0)	22 (68.6)	37 (59.7)	0.465[2]
Outcomes					
Liver cirrhosis	29 (45.3)	17 (47.2)	12 (20.7)*	35 (35.4)	**0.016**[2]
Esophageal varices	27 (43.5)	14 (50.0)	10 (20.8)*	29 (36.3)	**0.035**[2]
Transplantation	8 (10.7)	4 (10.5)	1 (1.7)	6 (6.0)	0.138[1]
Death	7 (14.9)	3 (9.4)	5 (11.1)	10 (12.7)	0.893[2]

AMA, anti-mitochondria autoantibody; ANA, anti-nuclear autoantibody; ASMA, anti-smooth muscle autoantibody; AP, alkaline phosphatase; AST, aspartate aminotransferase; ALT, alanine aminotransferase; BX, liver biopsy; HDL, high-density lipoprotein; IgG, immunoglobulin G; IgM, immunoglobulin M; ULN, upper limit of normality; Yr., years.*Variable associated with the statistically significant difference,[1]Fisher's test, [2]Chi-square test, [3]ANOVA, [4]Kruskal-Wallis test.

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O-11 REMODELING OF IMMUNOLOGICAL BIOMARKERS IN PATIENTS WITH CHRONIC HEPATITIS C TREATED WITH DIRECTACTING ANTIVIRAL THERAPY

Isabela Gomes Ribeiro[1,2,3], Jordana Grazziela Alves Coelho-Dos-Reis[3,4], Jordana Rodrigues Barbosa Fradico[3], Ismael Artur da Costa-Rocha[3], Luciana Diniz Silva[1,2,5], Lucy Ana Santos Fonseca[1,2], Rhaissa Carvalho Said Stancioli[1,2], Andréa Teixeira-Carvalho[3], Olindo Assis Martins-Filho[3,*], Rosângela Teixeira[1,2,5]

[1] *Pós-graduação em Ciências Aplicadas da Saúde do Adulto, Faculdade de Medicina, Universidade Federal de Minas Gerais, Belo Horizonte, MG, Brazil*
[2] *Ambulatório de Hepatites Virais, Instituto Alfa de Gastroenterologia, Hospital das Clínicas/ Universidade Federal de Minas Gerais, Belo Horizonte, Minas Gerais, Brazil*
[3] *Grupo Integrado de Pesquisa em Biomarcadores, Instituto René Rachou, Fundação Oswaldo Cruz – FIOCRUZ-Minas, Belo Horizonte, MG, Brazil*
[4] *Laboratório de Virologia Básica e Aplicada, Instituto de Ciências Biológicas, Universidade Federal de Minas Gerais, Belo Horizonte, MG, Brazil*
[5] *Departamento de Clínica Médica, Faculdade de Medicina, Universidade Federal de Minas Gerais, Belo Horizonte, Minas Gerais, Brazil*

Background & Aims: The treatment of hepatitis C with DAAs has offered an opportunity to analyze the changes in the immune system caused by the rapid inhibition of viral replication. We sought to analyze the kinetics profiles of serum biomarkers in patients upon DAAs treatment.

Methods: 50 patients were enrolled before (baseline), during (W2-4 and W8-12 weeks) and post-treatment (W12-24 weeks) with sofosbuvir and daclatasvir ± ribavirin (n=36) or simeprevir (n=14). 15 uninfected blood donors formed the control group (NI). Serum biomarkers CXCL8, CCL11, CCL3, CCL4, CCL2, CCL5, CXCL10, IL-1β, IL-6, TNF-α, IL-12, IFN-γ, IL-15, IL-17, IL1Ra, IL-4, IL-5, IL-9, IL-10, IL-13, FGF-basic, PDGF, VEGF, G-CSF, GM-CSF, IL-7 e IL-2 were quantified by Luminex Bio-Plex Pro™. Mann-Whitney (HCV and NI), Kruskal Wallis (multiple), and Dunn (sequential in pairs) tests compared groups, with significance value if $p \leq 0.05$. The study was approved by ethical boards.

Results: At baseline, patients had high levels of chemokines, pro-inflammatory cytokines, and growth factors, with minor increase of regulatory cytokines. The kinetics timeline of baseline fold changes revealed early decline of CXCL8, CCL4, IL6, IL-15, IL-17, IL-9, GM-CSF and IL-7 at W8-12, and late remodeling of CCL3, CCL2, CCL5, IL1β, TNF-α, IL-12, IFN- γ, IL1-Ra, IL-4, IL-10, IL-13, PDGF, VEGF, G-CSF at W12- 24. Baseline ALT ≥69U/L, platelet ≤150,000/mm3 and cirrhosis were related to delayed remodeling in immune response.

Conclusions: The HCV eradication with DAAs results in profound readjustment of the microenvironment of serum immune biomarkers and may be slower in cirrhotic patients. These results add evidence to the knowledge of the process of immune remodeling associated with the rapid viral eradication of HCV with the DAAs.

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O-12 MIR-181A AS A BIOMARKER OF FIBROSIS IN NON-ALCOHOLIC FATTY LIVER DISEASE

Rodrigo Vieira Costa Lima[1], Fernanda de Mello Malta[1], José Tadeu Stefano[1], João Renato Pinho[1], Flair José Carrilho[1], Claudia Pinto Marques Souza de Oliveira[1]

[1] *Division of Clinical (LIM-07), Department of Gastroenterology, University of São Paulo School of Medicine*

Introduction: Non-Alcoholic Fatty Liver Disease (NAFLD) covers a wide spectrum of disease, ranging from simple steatosis to cirrhosis. Liver biopsy is still the gold standard for assessing fibrosis, but there is a need to seek non-invasive biomarkers that can also be efficient in predicting fibrosis.

Objectives: To evaluate the role of microRNAs miR-21, miR-29a, miR-122, miR-155 and miR-181a in the phenotypic expression of NAFLD, correlating their serum levels with the different stages of the disease.

Methods: Cross-sectional study carried out on 108 NAFLD patients diagnosed by liver biopsy. In the histological analysis, the degrees of fibrosis and NAFLD activity score (NAS) were obtained. The FIB-4 and NAFLD fibrosis score were calculated and compared with the degree of fibrosis by biopsy. The comparison between the distributions of microRNA values according to the presence or absence of clinically expressed fibrosis (F2-4) was performed. The serum expression of microRNAs was also compared with the NAS of the biopsy. A multivariate logistic regression analysis was performed to build a score for predicting fibrosis using FIB-4 and Ln (miR-181a) as independent variables.

Results: Among the microRNAs studied, only miR-181a showed a statistical difference between patients with clinically expressed fibrosis and those without fibrosis (F0-F1) determined by liver biopsy ($p = 0.017$). FIB-4 revealed an AUC on the ROC curve of 0.667 to predict clinically expressed fibrosis (F2-F4). When assessed using the score in association with Ln (miR-181a), there was an improvement in the ROC curve, with AUC of 0.71. There was no correlation between the serum levels of microRNAs miR-21, miR-29a, miR-122, miR-155 and miR-181a with the degrees of inflammatory activity determined by NAS.

Conclusion: miR-181a can be used as a non-invasive method of predicting fibrosis in NAFLD, and an association of biomarkers has the potential to increase the accuracy of each method alone.

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O-13 Hepatocellular carcinoma patients are advantage in the Brazilian current liver transplant allocation system. A competing risk analysis. A RETROSPECTIVE STUDY

Santiago Rodrıguez[1], Alfeu de Medeiros Fleck Jr.[2], Marcos Mucenic[2], Claudio Marroni[1,2], Ajacio Brandão[1,2]

[1] *Graduate Program in Medicine: Hepatology, School of Medicine, Universidade Federal de Ciências da Saúde de Porto Alegre (UFCSPA), Porto Alegre, RS, Brazil*
[2] *Liver Transplantation Group, Santa Casa de Misericórdia de Porto Alegre, Porto Alegre, RS, Brazil*

Background: In Brazil, the Model for End-Stage Liver Disease (MELD) score is used to prioritize patients for deceased donor liver transplantation (DDLT). Patients with hepatocellular carcinoma (HCC) receive standardized MELD exception points to account for their cancer risk of mortality, which is not reflected by their MELD score.

Objective: To compare DDLT rates between patients with and without HCC in Rio Grande do Sul, the Southernmost state of Brazil.

Methods: We retrospectively studied 825 patients on the liver-transplant waiting list from January 1, 2007, to December 31, 2016, in a transplant center located in Porto Alegre, the capital of Rio Grande do Sul, to compare DDLT rates between those with and without HCC. The time-varying hazard of waiting list/DDLT was estimated, reporting the subhazard ratio (SHR) of waiting list/DDLT/dropout with 95% confidence intervals (CI). The final competing risk model was adjusted for age, MELD score, exception points, and ABO group.

Results: Patients with HCC underwent a transplant almost three times faster than patients with a calculated MELD score (SHR 2.64; 95% CI 2.10-3.31; P<0.001). The DDLT rate per 100 person-months was 11.86 for HCC patient's vs 3.38 for non-HCC patients. The median time on the waiting list was 5.6 months for patients with HCC and 25 months for patients without HCC.

Conclusion: Our results demonstrated that, in our center, patients on the waiting list with HCC have a clear advantage over candidates listed with a calculated MELD score.

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O-14 A SYNERGISTIC EFFECT OF PNPLA3 GENE POLYMORPHISM AND INSULIN RESISTANCE INCREASES THE RISK TO NON-ALCOHOLIC FATTY LIVER DISEASE IN PATIENTS WITH POLYCYSTIC OVARY SYNDROME

Amanda Recuero[1], Fernanda Malta[1], Larissa Gomes[2], Gustavo Maciel[3], Paula Salles Ana[1],

Sandra Tochetto[4], Maria Cristina Chammas[4], Denise Paranaguá-Vezozzo[1], Edmund Baracat[4], José Tadeu Stefano[1], Alex Cassenote[1], João Renato Pinho[1], Flair Carrilho[1], Oliveira Claudia P.[1]

[1] *Division of Clinical Gastroenterology and Hepatology, University of São Paulo School of Medicine, São Paulo, Brazil*
[2] *Division of Endocrinology, University of São Paulo School of Medicine, São Paulo, Brazil*
[3] *Division of Obstetrics and Gynecology, University of São Paulo School of Medicine, São Paulo, Brazil*
[4] *Radiology Institute, Hospital das Clínicas, University of São Paulo School of Medicine, São Paulo, Brazil*

Introduction: The patatin-like phospholipase 3 gene polymorphism (PNPLA3) has been consistently associated with non-alcoholic fatty liver disease (NAFLD) and its histological severity on different populations. In addition, increasing evidence demonstrates the association of NAFLD and polycystic ovary syndrome (PCOS), both associated with obesity, insulin resistance (IR) and metabolic syndrome (MS).

Aim: Describe the prevalence of the PNPLA3 gene polymorphism and its impact on NAFLD susceptibility and progression in women with PCOS.

Methods: This was a cross-sectional study enrolling 163 patients with PCOS. All the patients were evaluated for the presence of the PNPLA3 (rs738409 c.444C>G) polymorphism, hepatic steatosis at ultrasound and metabolic disorders. In patients with steatosis, transient hepatic elastography was performed to assess liver stiffness.

Results: In this population, evidence of hepatic steatosis was observed in 72.4% of them. The polymorphism was present in heterozygosis (CG) in 41.7% and in homozygosis (GG) in 8% of patients and was not statistically associated with the occurrence of NAFLD or clinically significant fibrosis (≥ F2). IR had a prevalence of 75% and, after evaluation by a multiple regression model, it was the main factor associated with the risk of NAFLD (B = 1.405, p = 0.026). A synergistic effect between IR and the presence of polymorphism on increasing the risk of NAFLD was observed (B = 2.047, p = 0.042). HDL values ≥ 49 mg/dL showed a negative association with NAFLD (B = - 1.578, p = 0.001). MS and IR, waist circumference, higher values of transaminases and lower levels of dehydroepiandrosterone sulfate were associated with clinically significant fibrosis.

Conclusion: The PNPLA3 gene polymorphism did not present an independent association either with NAFLD or the development of clinically significant fibrosis in women with PCOS. However, the polymorphism interacts synergistically with IR and increases the risk of NAFLD.

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O-15 ABSENCE OF DISEASE REMISSION AS A RISK FACTOR FOR HEPATOCELLULAR CARCINOMA IN PATIENTS WITH AUTOIMMUNE HEPATITIS

Nayana Fonseca Vaz[1], Julia Fadini Margon[1], Bruna Damasio Moutinho[1], Michele Harriz Braga[1], Claudia Megumi Tani[2], Regiane Saraiva de Souza Melo Alengar[2], Lisa Rodrigues da Cunha Saud[2], Denise Cerqueira Paranaguá Vezozzo[1], Marta Deguti[1], Natally Horvat[2], Eduardo Luiz Rachid Cançado[1,3], Flair Jose Carrilho[1,2], Aline Lopes Chagas[1,2], Débora Terrabuio[1]

[1] *Department of Gastroenterology, Hospital das Clínicas da FMUSP, São Paulo, Brazil*
[2] *São Paulo Clinicas Liver Cancer Group, Instituto do Câncer do Estado de São Paulo, São Paulo, Brazil*
[3] *Immunopathology and Zoonoses, Institute of Tropical Medicine of São Paulo, São Paulo, Brazil*

Background and Aims: Hepatocellular carcinoma (HCC) occurrence is rare in autoimmune hepatitis (AIH) and data about its characteristics are still scarce. The aims of this study were to describe HCC prevalence and risks factors in AIH patients in a tertiary referral hospital.

Methods: Retrospective cohort of AIH patients followed from 2003 to 2019. The hazard ratios (HR) and their respective 95% confidence intervals (95%CI) were estimated using simple Cox regression. A multivariate regression model was fitted using relevant covariates for HCC occurrence.

Results: Among 355 AIH patients, 84.5% were female, 85% AIH-1, 65% with cirrhosis and mean age at AIH diagnosis of 27±18yr. Sixteen cases of HCC were diagnosed (4.5%), all of them in cirrhotic patients, 81.3% female, mean age of 49±20yr, 83% overweight (BMI 34±5kg/m^2) and 3 with associated steatohepatitis. The pooled incidence rate for HCC was 3.2 per 100 patient-years. The pooled incidence of HCC in patients with cirrhosis at AIH diagnosis was 4.5 per 100 patient-years. The median time between AIH diagnosis and HCC was 9 years (1-42). At univariate analysis the factors associated with HCC risk were age at diagnosis of AIH (HR,1.05; 95%CI,1.02-1.08; p<0.001), platelet count $<100 \times 10^6/mm^3$ (HR,4.77; 95%CI, 1.73-13.17; p=0.003), presence of portal hypertension (HR,2.72; 95%CI,0.79-9.29; p=0.001), diabetes (HR,3.89; 95%CI,1.18-12.7; p=0.025) and disease remission at any time of follow up (HR,0.14; 95%CI,0.05-0.41; p<0.001). At multivariate analysis the factors associated with HCC risk were age at diagnosis (HR,1.05; 95%CI,1.027-1.083; p<0.001) and portal hypertension (HR,4.88; 95%CI,1.49-15.92; p=0.009). The occurrence of disease (AIH) remission during follow up was associated with lower risk of HCC (HR,0.128; 95%CI,0.043-0.38; p<0.001).

Conclusions: The prevalence of HCC in this cohort was 4.5%. Advanced age at diagnosis, diabetes, platelet count $<100 \times 10^6/mm^3$, presence of portal hypertension and absence of disease remission during treatment were associated with greater risk of HCC.

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O-16 EVALUATION OF THE RESPONSE TO TREATMENT OF VITAMIN D DEFICIENCY IN PEDIATRIC PATIENTS WITH CHRONIC LIVER DISEASE

Carolina Roos Mariano da Rocha[1], Carlos Oscar Kieling[2], Marina Rossato Adami[2], Renata Rostirola Guedes[2], Guilherme Guaragna Filho[1,3,4], Sandra Maria Gonçalves Vieira[1,2,4]

[1] *Universidade Federal do Rio Grande do Sul, Programa de Pós Graduação em Saúde da Criança e do Adolescente, Porto Alegre – RS (Brasil)*
[2] *Hospital de Clínicas de Porto Alegre, Serviço de Pediatria, Unidade de Gastroenterologia e Hepatologia Pediátrica, Programa de Transplante Hepático Infantil, Porto Alegre – RS (Brasil)*
[3] *Hospital de Clínicas de Porto Alegre, Serviço de Pediatria. Porto Alegre – RS (Brasil)*
[4] *Universidade Federal do Rio Grande do Sul, Departamento de Pediatria, Porto Alegre – RS (Brasil)*

Background: Vitamin D deficiency prevalence is high in children with chronic liver disease and there is no consensus about its best treatment.

Objective: To evaluate the prevalence of vitamin D deficiency in children with chronic liver disease, to identify clinical and laboratorial features related to it and to evaluate the response of treatment with 6000IU per day of cholecalciferol for 60 days or more.

Methods: Historical cohort that included patients younger than 18 years old, followed in Pediatric Hepatology Unit of Hospital de Clínicas de Porto Alegre from January 2015 to November 2020, who had at least one dosage of 25(OH)D before liver transplantation. Laboratorial data were evaluated before and after treatment with cholecalciferol. Clinical and laboratorial features of the group that responded to treatment was compared with the group that did not respond. Data were collected from patient's electronic charts.

Results: Ninety-six patients were included in the study. The prevalence of vitamin D deficiency was 67.7%. Patients with vitamin D deficiency were younger than patients without deficiency ($p<0.001$), had higher PELD, MELD and Child-Pugh scores ($p=0.002$ e $p<0.001$ respectively), higher levels of total bilirubin ($p<0.001$), gamma glutamyl transferase ($p<0.001$) and alkaline phosphatase ($p=0.002$) and lowers levels of phosphorus ($p=0.009$). Thirty-one patients were treated with 6000IU of cholecalciferol per day for 60 days or more. Only 29% of them achieved normal levels of 25(OH)D. Patients that responded to treatment had lower Child-Pugh score ($p=0.001$), lower level of total bilirubin at the moment of the second 25(OH)D dosage ($p=0.001$) and higher level of phosphorus ($p=0.003$).

Conclusion: Vitamin D deficiency in children with chronic liver disease is related to the severity of the liver disease and cholestasis. The treatment response rate is low. Normalization of 25(OH)D levels is associated with cholestasis improvement.

Keywords: Cholestasis, liver cirrhosis, vitamin D deficiency, metabolic bone diseases
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O-17 Are macroeconomic and health expenditure indicators correlated with the capacity for liver transplantation in Latin American Countries? THE ALEH Special Interest Group, international Survey 2020

Rodrigo Zapata[1], Graciela Castro[2], Josefina Pages[3], Fernando Cairo[4], Oscar Imventarza[5], Alejandra Villamil[6], Paulo Bittencourt[7], Leonardo Schiavon[8], J.R. Alfeu de Medeiros Fleck[9], Ricardo Villarroel[10], Oscar Varas[11], Juan Carlos Restrepo[12], Adriana Varon[13], Daniela Hernandez[14], Pablo Coste[15], Marcia Samada[16], Antonio Enamorado[17], Chong Ricardo[18], Byron Abad[19], Alvaro Urzúa[20], Rodrigo Wolff[21], Mario Uribe[22], Regina Ligorrea[23], Edgard Aguilera[24], Eira Cerda[25], Sergio Lopez[26], Marcos Girala[27], Martin Padilla[28], Marlene Perez[29], Victoria Mainardi[30], Solange Gerona[31]

[1] *Coordinator, ALEH Liver Transplant Sig. Unidad de Transplante, Clinica Alemana / Facultad de Medicina, Universidad del Desarrollo, Santiago, Chile*
[2] *Co-coordinator, ALEH Liver Transplant Sig. Instituto Nacional de Ciencias Medicas y Nutrición Salvador Zubiran y Hospital Medica Sur, Ciudad de Mexico, Mexico*
[3] *Liver Transplant Unit, Hospital Universitario Austral, Universidad de Buenos Aires, Buenos Aires, Argentina*
[4] *Liver Transplant Unit, Hospital el Cruce, Hospital Britanico, Buenos Aires, Argentina*
[5] *Liver Transplant Unit, Hospital Argerich, Hospital Garrahan, Stalyc Representative, Buenos Aires, Argentina*
[6] *Liver Transplant Unit, Hospital Italiano de Buenos Aires, Argentina*
[7] *Liver Unit, Hospital Portugues de Salvador, Bahi, Brazil*
[8] *Universidad Federal de Santa Catarin, Florianopolis, Santa Catarina, Brazil*
[9] *Liver Transplant Unit, Hospital Moinhos de Vento, Irmandade de Santa Casa de Misericordia de Porto Alegre, Porto Alegre, Brazil*
[10] *Hospital San Juan de Dios, Santa Cruz de la Sierra, Bolivia*
[11] *Centro de Enfermedades Digestivas Varas Castrillo, Tarija, Bolivia*
[12] *Liver Transplant Unit, Hospital Pablo Tobon Uribe, Medellin, Colombia*
[13] *Liver Unit, Fundación Cardioinfantil, Bogota, Colombia*
[14] *Hospital Mexico, La Oruca, San Jose, Costa Rica*
[15] *Hospital Rafael Angel Calderon Guardia, San Jose, Costa Rica*
[16] *Centro de Investigaciones Medico-Quirurgicas, La Habana, Cuba*
[17] *Programa de Trasplantes, La Habana, Cuba*
[18] *Liver Transplant Unit, Hospital de Especialidades Carlos Andrade Marin, Quito, Ecuador*
[19] *Transplant Coordinator, Hospital de Especialidades Arlos Andrade Marin, Quito, Ecuador*
[20] *Liver Transplant Unit, Hospital Clinico, Universidad de Chile y Clinica Santa Maria, Santiago, Chile*
[21] *Liver Transplant Unit, P. Universidad Catolica de Chile, Santiago, Chile*
[22] *Liver Transplant Unit, Hospital Salvador, Hospital Calvo Mackena y Clinica Las Condes, Stalyc Representative, Santiago, Chile*
[23] *Hospital San Juan de Dios, Ciudad de Guatemala, Guatemala*
[24] *Hospital Clinica Viera, Tegucigalpa, Honduras*
[25] *Unidad de Trasplante Hepatico, Hospital Central Militar, Ciudad de Mexico, Mexico*
[26] *Hospital Escuale Dr. Roberto Calderon, Managua, Nicaragua*
[27] *Universidad Nacional de Asunción, Asuncion, Paraguay*
[28] *Department of Transplantation, Hospital Nacional Guillermo Almenara y Universidad Nacional Mayor de San Marcos, Lima, Perú*
[29] *Liver Transplant Unit, Hospital General de la Plaza de la Salud, Santo Domingo, Republica Dominicana*
[30] *Liver Transplant Unit, Hospital Central de las Fuerzas Armadas, Montevideo, Uruguay*
[31] *Liver Transplant Unit, Hospital de Clinicas y Hospital Central de las Fuerzas Armadas, Montevideo, Uruguay*

Introduction: Latin America (LA), is a geographical region with 20 countries homing 652 million people (10% world population), with a huge cultural, economic and developmental diversity. The ALEH (Asociación Latinamericana para el Estudio del Hígado) has driven the formation of special interest groups (SIGs) to enhance the collaboration of health care professionals with common specialized interests in the field of hepatology. The gross domestic product (GDP) is a monetary measure of the market value of all the final goods and

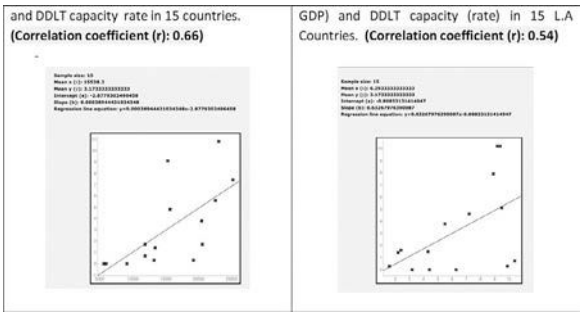
services produced in a specific time period by a country. The ratio of GDP to the total population of the region is the per capita GDP (Mean Standard of Living). It is often considered to be the "world's most powerful statistical indicator of national development and progress". On the other hand, Liver transplantation (LT) is considered a very expensive procedure requiring high-cost management with a lifelong immunosuppression, hence a possible barrier to some underdeveloped countries. In the different regions of the USA, there has been shown a strong correlation between GDP per capita and all organ donation rates, except heart donation (1988-2012). In LA countries, there is almost no data on the relation of macroeconomic indicators in relation to the capacity for LT.

Aims: To study the influence of macroeconomic indicators with the LT capacity in LA.

Methods: During 2020, LA countries, were invited to nominate representatives to this SIG and also from the STALYC. Online ZOOM meetings were arranged to discuss a survey of more than 70 questions in relation to different topics in LT including economic indicators of countries, barriers and access to LT. A database with all the information was built in an excel file. Scatter plot graphs were built to evaluate correlation and linear regression equations for different variables.

Results: 15 out of 20 countries completed the questionnaire by Jan/2021. During 2019 there were 3,354 DDLT performed in 13 out of the 15 countries (DDLT rate of 5.85 LT/pmp), and 483 LDLT in 7 countries. The mean costs of LT (hospitalization and first month) in our survey was 57,000 USD. After evaluating a few macroeconomic indicators, the higher GDP per capita and the higher health expenditure (as % of GDP) had a good positive correlation with the LT capacity in LA countries (scatter plot). There was no correlation with the gross GDP with LT (DDLT nor LDLT), nor with de number of active LT centers in each country.

Conclusions: Our study shows a positive correlation between economic indicators of prosperity (GDP per capita and health expenditure) and LT rates. Chronic liver diseases are a very common cause of burden of disease in LA, and although LT is a high-cost procedure, it is. a lot less expensive than in other world regions. LA is still composed of countries with huge cultural, economic and developmental diversity and where at least 30% of the population lives in poverty, nevertheless, some countries have been able to perform LT with rates > 5 ppm with excellent results. There is need to improve education and investment in LT as a health priority, being saving life procedure



making possible to return a chronic patient to a normal and productive life.

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O-18 IMPAIRED ANTI-HBV VACCINE RESPONSE IN NON-CIRRHOTIC CHRONIC HCV PATIENTS IS NOT OVERCOME BY DOUBLE DOSE REGIMEN. FOURTH DOSE MAYBE THE ANSWER!

Roseane Pôrto Medeiros[1], Norah A. Terrault[2], Daniel F. Mazo[1], Claudia P. Oliveira[1], Jennifer L. Dodge[2], Patricia M. Zitelli[1], M. Lopes[1], Flair J. Carrilho[1], Mário Guimarães Pessoa[1]

[1] *Faculdade de Medicina da Universidade de São Paulo, Divisão de Gastroenterologia e Hepatologia, São Paulo – Brasil*
[2] *University of California San Francisco (UCSF), Sao Francisco, USA*

Introduction: Hepatitis B virus (HBV) vaccination is regarded as the most effective method for the prevention and control of HBV infection. Studies showed a reduced HBV vaccine response between patients with chronic **hepatitis C** (HCV), but studies exploring HBV vaccine efficacy in this population have equivocal results.

Objectives: To evaluate HBV vaccine response in patients with HCV submitted to two different (20 μg vs 40 μg in 0, 1 and 6 months) anti-HBV vaccine schemes and administer the 4th additional dose in non-responders as well as assess the maintenance of seroprotectors titers.

Table 1
Summary of demographics, macroeconomical indicators and LT practices in LA (LT: Liver Transplantation; DDLT: Deceased donor LT; LDLT: Living donor LT; Rates: per million population; GDP: Gross domestic product; pp: per capita; LOS: Length of stay of hospitalization for LT; Pop: Population; Mill: Millions; Dom. Rep.: Dominican Republic; USD: US Dollars; Hosp: Hospitalization)

Country	Pop. 2019 (mill)	GDP 2019 (current, in million USD)	GDP per capita 2019 (USD)	Health expenditure (% of GDP)	Number active LT centers	Total DDLT (2019)	DDLT Rate (2019)	Total LDLT (2019)	LDLT Rate (2019)
1.Argentina	44,5	445,445.18	23.040	9.4	32	463	10.2	41	0.9
2.Brazil	211,9	1,839758,04	15.300	9.2	74	2177	10.2	304	1.4
3.Bolivia	11,3	40,895.32	9.110	4.2	1	0	0	4	0.3
4.Colombia	48,2	323,615.98	15.634	7.2	14	231	4.6	102	2
5. Costa Rica	5,1	61,801.39	20.443	7.8	3	19	3.8	0	0
6.Cuba	11,3	100,023.00	11.900	10.4	3	9	0.7	0	0
7.Chile	19,5	282,318.16	25.155	8.9	11	145	7.9	19	1
8. Ecuador	17,1	107,435.66	11,878	2.7	5	27	1.5	0	0
9.Honduras	9,6	25,095.40	5.981	6.3	0	0	0	0	0
10.Mexico	127	1,268,870.53	20.582	2.4	25	213	1.6	10	0.08
11.Nicaragua	6,4	12,520.92	5.646	3.2	0	0	0	0	0
12.Paraguay	6,9	38,145.29	13.246	9.9	1	2	0.3	0	0
13.Peru	32,6	226,848.05	13.416	2.2	4	46	1.4	1	0.09
14.Dom Rep.	11	88,941.30	19.227	1.6	1	4	0.3	0	0
15.Uruguay	3,2	56,045.91	22.515	9.5	1	18	5.1	0	0
All Countries	566	1,810,965,758	14.573	6,3	143	3.354	5.85	483	0.84

Abbreviations
D. Republic: Dominican Republic; GDP: gross domestic product; pp: per capita; USD: United states Dollars;

Methods: This randomized controlled trial included 141 HCV who received double dose (40ug) or standard dose (20ug) and 70 healthy volunteers who received standard dose (20ug) at 0, 1 and 6 months. Anti-HBs titers were measured at 1 month after last dose. Vaccine response was defined by anti-HBs ≥10 U/L. Non-responders received the fourth dose according to the group that were previously randomized. Multivariate regression was modeled as a logistic regression.

Results: 128 completed the study. Median age 51 years, 61% female, 52% White, 40% F2-3, and 75% GT1, median 6 log10 HCV RNA. Overall seroconversion rate was 76.7% (n=60) in double dose and 73.5% (n=68) in standard dose, compared to 91.2% in controls (n=68). 23 patients received the fourth dose; 7 seroconverted (30.4%) and seroconversion rate for double and standard doses were 42.9% and 11.1%, respectively (p=0.18). Controlling for confounders, only older age (p<0.001) and GT1 (p=0.005) were associated with a decreased anti-HBs response.

Conclusion: In HCV-infected patients without cirrhosis, responses to HBV vaccination are significantly impaired and this reduced response cannot be overcome by the use double dose. Besides that, 4th dose HBV vaccination can be a strategy efficacious this vulnerable population.

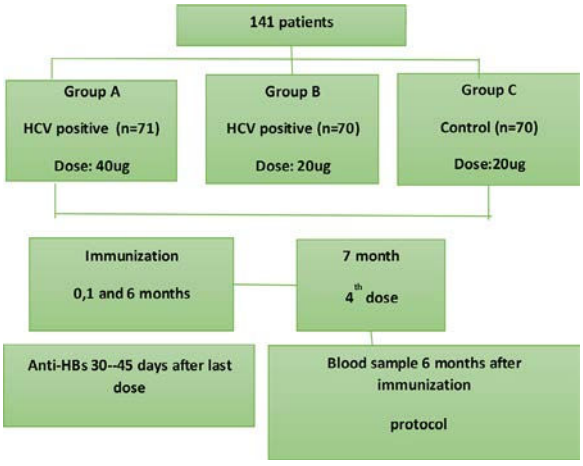

Figure 1- A randomized study comparing two doses of anti-HBV vaccination.

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O-19 INCIDENCE, PATTERN OF PRESENTATION AND RISK FACTORS FOR HEPATOCELLULAR CARCINOMA AFTER DIRECT ACTING ANTIVIRAL TREATMENT IN PATIENTS WITH HEPATITIS C VIRUS CIRRHOSIS

Roseane Porto Medeiros[1], Oscar Imventarza[2], Alejandra Villamil[3], Pablo Bittencourt[4], Leonardo Schiavon[5], Alfeu de Medeiros Fleck Jr[6], Ricardo Villarroel[7], Oscar Varas[8], Juan Carlos Restrepo[9], Adriana Varón[10]

[1] *Faculdade de Medicina da Universidade de São Paulo, Divisão de Gastroenterologia e Hepatologia, São Paulo, Brasil*
[2] *Liver Transplant Unit, Hospital Argerich, Hospital Garrahan. Stalyc Representative, Buenos Aires, Argentina*
[3] *Liver Transplant Unit, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina*
[4] *Instituto Brasileiro do Fígado - Sociedade Brasileira de Hepatologia*
[5] *Universidad Federal de Santa Catarin, Florianapolis, Santa Catarina, Brazil*
[6] *Liver Transplant Unit, Hospital Moinhos de Vento, Irmandade de Santa Casa de Misericordia de Porto Alegre, Porto Alegre, Brazil*
[7] *Hospital San Juan de Dios, Santa Cruz de la Sierra, Bolivia*
[8] *Centro de Enfermedades Digestivas Varas Castillo, Tarua, Bolivia*
[9] *Liver Transplant Unit, Hospital Pablo Tobon Uribe, Medellin, Colombia*
[10] *Liver Unit, Fundación Cardioinfantil, Bogotá, Colombia*

Background: Brazilian public health system currently provides universal free all oral direct-acting antiviral (DAA) therapy for patients with hepatitis C virus (HCV) infection. Despite high rates of sustained virological response (SVR), patients with cirrhosis remain at risk for hepatocellular carcinoma (HCC).

Objectives: The aim of this study was to investigate incidence, risk factors and tumor pattern at presentation in a cohort of Brazilian HCV-related cirrhotic patients treated with DAAs.

Methods: This prospective cohort study included patients with HCV-related cirrhosis treated with DAAs and followed for at least 24 weeks after therapy at the Viral Hepatitis Outpatient Clinic of Hospital de Clinicas de Porto Alegre, Brazil, between August 2016 and November 2017. Ultrasound screening was performed within 24 weeks before DAA therapy and patients with presumed past or current HCC were excluded. Primary outcome was HCC incidence. Secondary outcomes were risk factors for HCC ocurrence and tumor pattern at presentation. Multivariate analysis was used to identify independent variables associated with HCC development.

Results: A total of 234 patients with HCV cirrhosis were included. Fifty-six percent were males with a mean age of 61.2±10.9 years. Overall SVR was 97.4%. Child-Turcotte-Pugh (CTP) A, B and C at baseline was found, respectively, in 89.3%, 9.4% and 1,3%. Mean Model for End Stage Liver Disease (MELD) score was 9.17 ± 2.82. Esophageal varices were found in 43.6% of the patients. Type 2 diabetes was present in 18.8%. *De novo* HCC was diagnosed in 9% (21/234) of the patients during follow-up. Tumor pattern at presentation according to BCLC staging was 0, A, B, C and D in 19,1%, 47.6%, 4.8%, 28.6% and 0%, respectively. Multivariate analysis showed significant relative risk (RR) for HCC occurrence associated with the following variables: baseline MELD score ≥10 (RR: 1.8; p=0.05); absence of SVR (RR: 6.9; p=0.04); baseline platelet count <120 × 10^9/L (RR: 5.0; p=0.04) and baseline albumin level <3.5 mg/dL (RR: 4.6.

Conclusions: A high incidence of HCC was found after DAA therapy compared to the literature, particularly among patients with more advanced cirrhosis, particularly those with baseline albumin levels < 3.5 g/dL plus platelets < 120 × 10^9/L. Absence of SVR was also significantly associated with HCC development. The majority of patients presented with very early (BCLC 0) or early (BCLC A) HCC, although a significant proportion showed advanced stage (BCLC C) at presentation.

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O-20 ASSOCIATION BETWEEN UNCOUPLING PROTEIN 3 POLYMORPHISMS AND NONALCOHOLIC FATTY LIVER DISEASE AND METABOLIC SYNDROME

Karla Toda-Oti[2], José Tadeu Stefano[1], Ana Cavaleiro[3], Flair Carrilho[1,2], Maria Lúcia Correa-Gianella[3,4], Cláudia Oliveira[1,2]

[1] *Laboratório de Gastroenterologia Clínica e Experimental (LIM-07) do Departamento de Gastroenterologia e Hepatologia do Hospital das Clínicas HC-FMUSP da Facultade de Medicina da Universidade de São Paulo, São Paulo, SP, Brazil*
[2] *Departamento de Gastroenterología, Faculdade de Medicina da Universidade de São Paulo, São Paulo, SP, Brazil*
[3] *Laboratório de Carboidratos e Radioimunesaio (LIM-18), Hospital das Clínicas HC-FMUSP da Faculdade de Medicina da Universidade de São Paulo, São Paulo, SP, Brazil*
[4] *Programa de Pós-Graduação em Medicina, Universidade Nove de Julho (UNINOVE), São Paulo, SP, Brazil*

Introduction: Genetic variants in the uncoupling protein 3 (*UCP3*) gene have been associated with obesity, type 2 diabetes and atherogenic lipid profile, with conflicting results.

Objective: Our study evaluated the possible association between *UCP3* single nucleotide polymorphisms (SNPs) with nonalcoholic steatohepatitis (NASH) and metabolic syndrome (MetS) in NAFLD patients.

Methods: *UCP3* SNPs rs1726745, rs3781907 and rs11235972 were genotyped in 158 biopsy-proven NAFLD patients. Patients were evaluated according to the presence of nonalcoholic fatty liver (NAFL) or NASH and, according to the absence or presence of MetS. Statistics were performed with JMP, R and SHEsis software's.

Results: The TT genotype of rs1726745 was protective for MetS (OR=0.18; 95% CI=0.05-0.61; p=0.006) and was associated with lower body mass index (BMI) in the general sample (p=0.01) and in the NASH group (p=0.02). The rs1726745-T was associated with lower values of AST (p=0.001), ALT (p=0.0002), triglycerides (p=0.01) and total cholesterol (p=0.02) in the general sample. There were lower values of aminotransferases strictly in individuals with NASH (AST, p=0.002; ALT, p=0.0007) and with MetS (AST, p=0.002; ALT, p=0.001). The rs3781907-G was associated with lower GGT values (p=0.002) in the general sample and in the NASH group (p=0.004) and with MetS group (p=0.003) and, with protection for advanced fibrosis (OR=0.25; 95% CI=0.08-0.69; p=0.01).The rs11235972-A was associated with lower GGT values (p=0.006) in the general sample and in the NASH group (p=0.01) and with MetS group (p=0.005), with fibrosis absence (OR=0.34; 95% CI=0.14-0.80; p=0.01) and protection for advanced fibrosis (OR=0.17; 95% CI=0.03-0.56; p=0.01). The TAA haplotype was protective for NASH (OR=0.01; 95% CI=0.00-0.12; p=0.002) and TGG haplotype was protective for MetS (OR=0.22; 95% CI=0.07-0.69; p=0.01).

Conclusion: *UCP3* variants were associated with protection against NASH and MetS, in addition to lower values of liver enzymes, lipid profile, BMI and, lesser fibrosis severity in the studied population.

Table 1
Genotype frequencies of *UCP3* polymorphisms according to the presence of metabolic syndrome

UCP3 SNPs 5'->3'	With MetS	Without MetS	OR (CI 95%)	*P value*
rs11235972			-**	0.99
GG	0.706	0.815		
GA	0.254	0.185		
AA	0.040	0.000		
MAF	0.167	0.092		
rs3781907			0.51 (0.05 – 3.88)	0.52
AA	0.609	0.556		
AG	0.313	0.333		
GG	0.078	0.111		
MAF	0.234	0.277		
rs1726745			0.18 (0.05 – 0.61)	0.006*
CC	0.323	0.231		
CT	0.472	0.346		
TT	0.205	0.423		
MAF	0.441	0.596		

OR (odds ratio) for the minor allele in a recessive model obtained in logistic regression analysis adjusted for sex, age, type 2 diabetes mellitus and dyslipidemia. *$P \leq 0.02$.
**OR [2428148 (9.9×1015 – -)]: due the AA genotype absence among Without MetS individuals, it was not possible to calculate precisely the OR.
MAF, minor allele frequency; MetS, metabolic syndrome; SNPs, single nucleotide polymorphisms; *UCP3*, uncoupling protein 3 gene.

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O-21 SOLUBLE CD163 PERFORMANCE AS A NON-INVASIVE BIOMARKER OF DIFFERENT LIVER CONDITIONS

Cairoli Victoria[1], Casciato Paola Cecilia[2], Giadans Cecilia Graciela[1], Ameigeiras Beatriz[3], De Matteo Elena[1], Preciado Maria Victoria[1,#], Valva Pamela[1,#]

[1] *Multidisciplinary Institute for Investigation in Pediatric Pathologies (IMIPP), CONICET-GCBA, Laboratory of Molecular Biology, Pathology Division, Ricardo Gutiérrez Children's Hospital, Gallo 1330, CABA, C1425, Argentina*
[2] *Liver Unit, Italian's Hospital of Buenos Aires, Pres. Tte. Gral. Juan Domingo Perón 4190, CABA, C1199 ABH, Argentina*
[3] *Liver Unit, Ramos Mejía Hospital, Gral. Urquiza 609, CABA, CP1221, Argentina*

Introduction: Development of noninvasive tests to predict liver injury represents a current goal. Soluble CD163 (sCD163) is a specific plasma biomarker of macrophage activation with promising clinical relevance in estimating damage severity and predicting the outcome in different liver conditions.

Aim: To evaluate sCD163 performance as a non-invasive marker of liver damage.

Materials and Methods: sCD163 was quantified by enzyme-linked-immunosorbent assay in plasma from 123 patients (57 HCV, 20 HCV/HIV, 10 HBV, 36 MAFLD) obtained at time of liver biopsy. 20 healthy donors were included as controls. sCD163 values were compared among disease conditions and related to histological parameters of liver damage. Diagnostic performance was assessed by the area under the receiver operating characteristic curves (AUROC).

Results: Patients´ sCD163 levels [0.579g/L (0.034 -3.596)] were higher than controls´ [0.221g/L (0.116-0.549)] (p<0.0001, Mann-Whitney). However, in a detailed analysis according to disease etiology, only viral conditions showed significantly higher sCD163 levels [HCV+ 0.7520g/L (0.168-3.468), p<0.0001; HCV+/HIV+ 0.964g/L (0.345-3.596), p<0.0001; HBV+ 0.526g/L (0.199-0.802), p=0.0375, Dunn's-multiple-comparisons]. MAFLD patients displayed similar sCD163 levels to the control group [0.345g/L (0.0338-1.804)]. HCV mono- and HIV-coinfected patients shared the highest sCD163 levels. In relation to liver injury, HCV+ and HCV+/HIV+ patients specifically displayed a profile with higher sCD163 levels associated with more severe hepatitis. Remarkably, just in HCV+/HIV+ cases these differences were significant (p=0.0097 Mann-Whitney) and the AUROC analysis demonstrated a good performance in predicting hepatitis severity [AUROC=0.875; cutoff: 0.672g/L (91.67% sensitivity, 83.33% specificity)]. Concerning fibrosis, only HCV+ and HCV+/HIV+ patients with significant fibrosis displayed a profile with high sCD163 level; however, the AUROC analysis showed good performance just for HCV +/HIV+ patients [AUROC=0.825); cutoff: 0.9640g/L (100% sensitivity, 60% specificity)].

Conclusion: Plasmatic sCD163 is elevated in patients with several liver conditions but it can be particularly used as a marker of liver inflammation and fibrosis in HCV/HIV co-infected patients.

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[#] 'These two authors equally contributed to this work'

O-22 METABOLIC ASSOCIATED FATTY LIVER DISEASE: A SEVERE LIVER DISEASE

Ana Rafaela S. Do Vale, Andreza Rosa Cabral, Naiade S. Almeida, Antonio Ricardo C.F. Andrade, Ana Cristina Landim, Helma P. Cotrim

Nonalchoholic Steatohepatitis Study Group - Medicine School – Federal University of Bahia (UFBA) – Brazilian Research Council (CNPQ) - Brazil

Background: The spectrum of metabolic associated fatty liver disease (MAFLD) includes steatosis, steatohepatitis, that can progress to cirrhosis, hepatocellular carcinoma, and to advanced stage of liver disease. MAFLD associated with hepatic insufficiency has been frequent in the clinical practice.

Aim: To evaluate the frequency and characteristics of MAFLD patients with advanced liver disease.

Methodology: The case-series included MAFLD patients with advanced disease come from at a hepatology clinic. MAFLD criteria: past or present evidence of metabolic risk factors; presence or previous documentation of steatosis by imaging or histological analysis. Child-Pugh and MELD scores were used to estimate MAFLD prognosis. Portal hypertension (PH) was defined by the presence of gastroesophageal varices on endoscopy. The data were collected and analyzed using the statistic program SPSS.

Results: A total of 263 patients with MAFLD were included; 48 (18.25%) presented advanced liver disease. Most were female (79.2%); 68.8% were of African descent; median age was 69 years (IIQ 59.75-76.50). Features of metabolic syndrome was frequent in these patients (60.4% presented arterial hypertension; 47.9% diabetes, and 1% dyslipidemia). Child-Pugh (C-P) A was observed in 24.4% of the cases; C-P B in 63.4%; C-P C in 12.2%. MELD scores ranged from 7-24 (mean 13.34). PH was observed in 60.41% of the cases.

Conclusions: In a large series of patients with MAFLD, the frequency of hepatic insufficiency and portal hypertension were significant. Relevant finding in this simple also was the predominance of African descent individuals, who usually have a better MAFLD prognosis. This result needs to be better evaluated.

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O-23 METABOLIC ASSOCIATED FATTY LIVER DISEASE CLINICAL PROFILE IN LEAN PATIENTS: CAN IT BE DIFFERENT?

Andreza Rosa Cabral, Ana Rafaela S. Do Vale, Naiades S. Almeida, Raquel Rocha, Antonio Ricardo C.F. de Andrade, Ana Cristina Landin, Helma P. Cotrim

Nonalcoholic Steatohepatitis Study Group - Medicine School – Federal University of Bahia (UFBA) – Brazilian Research Council (CNPQ) - Brazil

Background: The prevalence of metabolic associated fatty liver disease (MAFLD) in lean patients has grown around the world and the better understanding of this liver disease, in these individuals, has become of interest.

Aim: To evaluate the profile of MAFLD in lean compared to obese patients.

Methodology: This case-series included patients with MAFLD from a hepatology clinic. MAFLD criteria included the presence of steatosis (ultrasound) and one of the following clinical conditions: overweight/obesity, type 2 diabetes mellitus (T2DM), other features of metabolic dysfunction. Fibrosis was evaluated by FIB4 and APRI scores. Two groups were considered: G1-lean adult (BMI≤24.99 kg/m^2); elderly (≥60 years- BMI<28 kg/m^2) patients; G2-obese adult (BMI≥25kg/m^2); elderly (BMI>28kg/m^2). SPSS software was used for data analysis.

Results: A total of 135 MAFLD patients were included: 57(42.2%) in G1; 78(57.8%) in G2. G1 characteristics: Mean age was 62.26 years (SD=11.71); 70.2% were women; 75% were of African descent (self-declared); BMI mean: 24.59kg/m^2(SD=2.37). Hypertriglyceridemia (HYT) was observed in 42.9% patients, T2DM in 47.4%, arterial hypertension (AH) in 54.4%, and low HDL 41.2%. Fibrosis not observed by FIB4 or APRI in all lean cases. G2 characteristics: Mean age was 55.62 years (SD=10.4); 80.8% were women; BMI mean: 32.05kg/m^2 (SD=3.78); 91% were of African descent. AH was found in 57.7% of the cases; T2DM in 46.2%; HYT in 36.1% and low HDL in 38.6%. Fibrosis was not observed by FIB4 and 5.5% presented fibrosis by APRI.

Conclusions: In these lean patients, MAFLD was frequent in elderly women; hypertriglyceridemia, T2DM were relevant risk factor; and they did not present fibrosis by noninvasive scores. The prevalence of Afro descent in this MAFLD population was elevated and the ethnicity influence in these cases needs to be better understood in future studies.

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O-24 A CASE SERIES OF CHLOROQUINE MONOTHERAPY TO INDUCE BIOCHEMICAL REMISSION IN PATIENTS WITH RELAPSED AUTOIMMUNE HEPATITIS

Bianca Pocopetz Facas, Júlia Fadini Margon, Andreia Silva Evangelista, Amanda Rodrigues de Moreto Longo Galvão, Eduardo Cançado, Débora Raquel Benedita Terrabuio

Division of Gastroenterology and Hepatology, Hospital das Clínicas, School of Medicine, University of São Paulo, São Paulo, Brazil

Background and Aims: Azathioprine (AZA) and prednisone (PD) are the standard treatment (ST) for the onset or relapse of autoimmune hepatitis (AIH). Antimalarials were effective for maintenance of remission of AIH after immunosuppression withdrawal. Our aim is to describe a series of patients who relapsed after antimalarial withdrawal and achieved biochemical remission after reintroduction of chloroquine in monotherapy.

Methods: Eight patients received chloroquine diphosphate (DCQ) 250mg/d or hydroxichloroquine (HCQ) 400-800mg/d in monotherapy for biochemical remission after relapse. The schedule is described below: histological remission (HR) with ST → ST withdrawal and antimalarial use for maintenance of remission for 1-3y → antimalarial withdrawal → relapse of AIH → reintroduction of antimalarial instead of ST, at the request of patient due to corticosteroids side effects (SE). Four out of 8 patients underwent liver biopsy to evaluate HR after at least 18mo of biochemical remission.

Results: Mean age at diagnosis of AIH of 36.2 ± 20.4y; 6 type-1, 2 anti-SLA/LP (5 reactive in 7 tested); 3 with cirrhosis at diagnosis. Mean doses of AZA/PD at HR were, respectively, 84.4 ± 18.6 and 9.4 ± 2.2mg/d. Mean interval between antimalarial withdrawal and relapse was 20.5 ± 34.1mo. Mean ALT at relapse was 139.7 ± 54.2 U/L. Three patients received DCQ and 5 HCQ. During HCQ intake 1 patient needed further adjustment of drug to 800 mg/d for 15 days due to worsening of ALT from 130 to 246 U/L, with subsequent reduction to the initial dose. Seven patients achieved biochemical remission, in a mean time of 14.2 ± 19.9mo; 3/4 had histological remission. The drug was well tolerated and there were no serious SE.

Conclusions: CQ monotherapy was safe and effective for induction of remission in this subgroup of AIH. This finding raises arguments to include this drug as an option for treatment of AIH, not necessarily in monotherapy.

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O-25 BACTERIAL INFECTION ENHANCES THROMBIN GENERATION IN PATIENTS WITH CIRRHOSIS

Marina Pamponet Motta[1], Elbio Antonio D'Antonio D'Amico[2], Tânia Rubia Flores da Rocha[2], Beatriz Yuri Migita[1], Juliana Medeiros Batista[1], Caroline Marcondes Ferreira[1], Flair José Carrilho[1], Alberto Queiroz Farias[1]

[1] *Department of Gastroenterology, University of Sao Paulo School of Medicine*
[2] *Coagulation Laboratory, Division of Hematology, University of Sao Paulo School of Medicine*

Introduction and Aims: Current concept of coagulopathy in cirrhosis indicates that there is a rebalancing of hemostasis with plasma hypercoagulability. Bacterial infection can promotes releases of endothelial heparinoids. However, the effect of this condition on the thrombin generation is unknown. Our aim was to assess the effect of bacterial infection on thrombin generation in cirrhosis.

Methods: 36 patients with cirrhosis and bacterial infection (infected group) were evaluated within 24 hours after start antibiotic and at least 5 days after infection resolution. 28 patients with decompensated cirrhosis and not infected (not infected group) were also enrolled and reevaluated, without any intervention between evaluation times. Primary endpoint was the effect of bacterial infection on thrombin generation (TG) parameter ETP with TM (ETP TM). TM is a protein C activator added to mimic *in vivo* conditions. ROTEM assays, INTEM and HEPTEM (heparinase modified), was performed to evaluate the endogenous heparinoids effect. Protein C (PC) and antithrombin (AT) assays were performed. All results were compared within each group between evaluation times.

Results: ETP TM values in infected cirrhotics were significantly higher than after resolution of infection (from 1145.4 ± 360.7 nmol/L*min to 958.1 ± 254.8 nmol/L*min, p=0.005) - figure 1. A heparinoid effect was found only in infected cirrhotics, with CT_{INTEM} duration significantly longer than CT_{HEPTEM} (p=0.004). This effect disappeared after resolution of infection (p=0.75). PC and AT deficiencies were significantly more severe in infected patients (p<0,01). RNI/TP, aPTT was worsen at active infection (p<0.05). None of these parameters exhibited a significant difference between inclusion and revaluation times in not infected group.

Conclusion: patients with cirrhosis exhibits significant higher amount of TG during bacterial infection and it is associated with reduction of PC and AT levels. Despite the endogenous heparinoid effect during infection in cirrhosis, plasma hypercoagulability is preserved and cannot be assessed by conventional coagulation tests.

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O-26 ASPARTATE AMINOTRANSFERASE, AGE AND D-DIMER IN COVID-19 PATIENTS: A USEFUL PROGNOSTIC MODEL

Fátima Higuera-de la Tijera[1,2], Alfredo Servín-Caamaño[1,3], Daniel Reyes-Herrera[1,3], Argelia Flores-López[1,3], Enrique J.A. Robiou-Vivero[1,3], Felipe Martínez-Rivera[1,3], Victor Galindo-Hernández[1,3], Catalina Casillas-Suárez[1,4], Oscar Chapa-Azuela[1,5], Alfonso Chávez-Morales[1,6], Víctor Hugo Rosales-Salyano[1,3], Billy Jiménez-Bobadilla[1,7], María Luisa Hernández-Medel[1,8], Benjamín Orozco-Zúñiga[1,9], Jed Raful Zacarías-Ezzat[1,5], Santiago Camacho-Hernández[1,2], José Luis Pérez-Hernández[1,2]

[1] *Multidisciplinary Team for the Attention and Care of Patients with COVID-19, Hospital General de México "Dr. Eduardo Liceaga", Mexico City, Mexico*
[2] *Gastroenterology and Hepatology Department, Hospital General de México "Dr. Eduardo Liceaga", Mexico City, Mexico*
[3] *Internal Medicine Department, Hospital General de México "Dr. Eduardo Liceaga", Mexico City, Mexico*
[4] *Pneumology Department, Hospital General de México "Dr. Eduardo Liceaga", Mexico City, Mexico*
[5] *General Surgery Department, Hospital General de México "Dr. Eduardo Liceaga", Mexico City, Mexico*
[6] *Intensive Care Unit, Hospital General de México "Dr. Eduardo Liceaga", Mexico City, Mexico*
[7] *Colorectal Surgery Department, Hospital General de México "Dr. Eduardo Liceaga", Mexico City, Mexico*
[8] *Infectious Disease Department, Hospital General de México "Dr. Eduardo Liceaga", Mexico City, Mexico*
[9] *Ginecology Department, Hospital General de México "Dr. Eduardo Liceaga", Mexico City, Mexico*

Introduction: Some patients with SARSCov-2 infection develop severe disease (SARS); however, the factors associated with severity are not yet fully understood. Some reports indicate that liver injury may be a poor prognostic factor.

Aim: To identify the biochemical factors related to the development of SARS with mechanical ventilation (MV) requirement in patients with SARSCov-2 and COVID-19.

Methods Type of study: Observational. Cohort study.

Procedure: Data from COVID-19 patients were collected at admission time to a tertiary care center. Differential factors were identified between seriously ill SARS+MV patients versus stable patients without MV. Transformation to the natural logarithm of significant variables was performed and multiple linear regression was applied, then a predictive model of severity called AAD (Age-AST-D dimer) was constructed.

Results: 166 patients were included, 114(68.7%) men, mean age 50.6±13.3 years-old, 27(16.3%) developed SARS+MV. In the comparative analysis between those with SARS+MV versus stable patients without MV we found significant raises of ALT (225.4± 341.2 vs. 41.3±41.1; *P*=0.003), AST 325.3±382.4 vs. 52.8±47.1; P=0.001), LDH (764.6±401.9 vs. 461.0±185.6; P=0.001), D dimer (7765±9109 vs. 1871±4146; P=0.003), age (58.6±12.7 vs. 49.1± 12.8; P=0-001). The results of the regression are shown in the Table, where model 3 was the one that best explained the development of SARS+MV; with these variables was constructed the model called AAD, where: [AAD= 3.896 + ln(age)x-0.218 + ln(AST) x-0.185 + ln(DD)x0.070], where a value ≤ 2.75 had sensitivity=0.797 and 1-specificity= 0.391, AUROC=0.74 (95%CI: 0.62-0.86; P<0.0001), to predict the risk of developing SARS+MV (OR=5.8, 95%CI: 2.2-15.4; P=0.001).

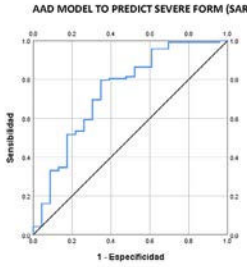
Conclusions: Elevation of AST (probable marker of liver damage) is an important predictor of progression to SARS, together with elevation of D-dimer and age early (at admission) and efficiently predict which patients will potentially require MV.

Model		Non-standarized Coeficients		StandarizedCoeficients	P	95% Confidence Interval for B		Colinearity statistics	
		B	Error Desv.	Beta		Inferior limit	Superior limit	Tolerance	VIF
1	C	2.721	.131		.000	2.462	2.980		
	AST	-.229	.033	-.512	.000	-.293	-.164	1.000	1.000
2	C	3.161	.198		.000	2.770	3.551		
	AST	-.194	.034	-.435	.000	-.261	-.127	.878	1.139
	DD	-.081	.028	-.221	.004	-.135	-.026	.878	1.139
3	C	3.896	.414		.000	3.077	4.714		
	AST	-.185	.034	-.413	.000	-.252	-.118	.860	1.163
	DD	-.070	.028	-.190	.014	-.125	-.014	.844	1.185
	Age	-.218	.108	-.148	.046	-.433	-.004	.915	1.093

AST, aspartate aminotransferase; C, constant; DD, D dimer; VIF, variance inflation factors.

Resume of the model:

1. R=0.512, r^2=0.262, r^2 adjusted=0.256, standard error=0.331.
2. R=0.552, r^2=0.305, r^2 adjusted=0.294, standard error=0.322.
3. R=0.570, r^2=0.325, r^2 adjusted=0.310, standard error=0.318. Durbin-Watson=1.53.



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O-27 IMPACT OF HBV GENOTYPE F IN THE DIAGNOSIS AND EVOLUTION OF PATIENTS WITH HBEAG-NEGATIVE CHRONIC HBV INFECTION

Hugo Fainboim[1], Nicolas Dibenedeto[2], Paz Silvia[1], Mendizabal Manuel[3], Soledad Campuzano[1], Micaela Martinez[4], Luciana Tadey[5], Gabriel Deluchi[5], Bouzas Belen[5], Mammana Lilia[5], Diego Flichman[4]

[1] *Unidad de Hepatopatías Infecciosas, Hospital de Infecciosas F.J Muñiz, Buenos Aires, Argentina*
[2] *Hospital Arrecifes, Buenos Aires, Argentina*
[3] *Hospital Universitario Austral, Buenos Aires, Argentina*
[4] *Instituto de Investigaciones Biomédicas en Retrovirus y Sida, Buenos Aires, Argentina*
[5] *Unidad de VirologÍa, Hospital de Infecciosas "Francisco J. Muñiz", Buenos Aires, Argentina*

Background: The quantitative hepatitis B surface antigen (qHBsAg) threshold of 1,000 IU/ml has been proposed to distinguish HBeAg-negative chronic infections from HBeAg-negative chronic hepatitis, to assess risk of liver disease progression, and to predict HBsAg clearance. There is evidence that qHBsAg vary significantly among genotypes, however, there is scarce data on genotype F, the most prevalent in Latin America.

Aims: To analyze the impact of HBV genotype F on qHBsAg inpatients with HBeAg-negative chronic infection and to describe clinical and virological outcomes.

Methods: HBV-DNA and qHBsAg serum levels of 141 patients with HBeAg-negative chronic infection were correlated with HBV genotype, who were followed for 10.6±7.4 years.

Results: The overall genotype distribution was as follows: F 46.8%, D 26.1%, A 25.2%, and B 0.7% and C 0.7%. While no impact of the HBV genotype on HBV DNA levels was observed, qHBsAg differed significantly among genotypes (p<0.001). The highest HBsAg levels were observed in genotype F (4.0±1.1 Log_{10}IU/ml) followed by genotype A (3.9±0.6 Log_{10}IU/ml) and genotype D (2.4±0.9 Log_{10}IU/ml). In genotype A and F, qHBsAg <3.0 Log_{10}IU/ml were only observed in 10.7% and 11.5% respectively.

Regardless of the HBV genotype, spontaneous clearance of HBsAg was observed in 17 cases. Of these, 12 patients presented qHBsAg <100 IU/ml one year before clearance. Despite, 101 (71.6%) patients showed qHBsAg >3.0 Log_{10}IU/ml, no cases of advanced liver disease or hepatocellular carcinoma were observed at the end of follow-up.

Conclusions: This study provides new insights into the impact of HBV genotypes on serum HBsAg levels, emphasizing the need to implement genotype-specific cut-off to achieve diagnostic certainty in the identification of HBeAg-negative chronic infection and the risk of liver disease progression, particularly on infections with genotypes A and F. Moreover, HBsAg serum levels can became a reliable biomarker to predict HBsAg clearance.

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O-28 DRUG-INDUCED LIVER INJURY IN LATINAMERICA: First ten years' experience of the ongoing LATINDILI Network

Fernando Bessone[1], Nelia Hernandez[2], Raymundo Parana[3], Manuel Mendizabal[4], Adriana Sanchez[2], Vinicius Nunes[3], Ezequiel Ridruejo[5], Daniela Schiodi[2], Genario Santos[3], Eduardo Fassio[6], Schinoni Maria I.[3], Hugo Tanno[1], Martin Tagle[7], Pedro Montes[8], Marco Arrese[9], Nahum Mendez-Sanchez[10], Javier Brahm[11], Marcos Girala[12], Isabel Lizarzábal M.[13], Edgardo Mengual[13], Enrique Carrera[14], Fernando Contreras[15], Inmaculada Medina-Caliz[16], Mercedes Robles-Díaz[16], Aida Ortega-Alonso[16], Miren García-Cortes[16], Ismael Alvarez-Alvarez[16], Hao Niu[16], Elvira Bonilla[16], Isabel Lucena M.[16], Andrade Raul J.[16]

[1] *Hospital Provincial del Centenario, University of Rosario School of Medicine, Rosario, Argentina*
[2] *Clínica de Gastroenterología, Hospital de Clínicas, Universidad de la República, Montevideo, Uruguay*
[3] *Hospital Universitário Prof. Edgard Santos-UFBA, Salvador, Brazil*
[4] *Hospital Universitario Austral, Buenos Aires, Argentina*
[5] *Centro de Educación Médica e Investigaciones Clínicas, Buenos Aires, Argentina*
[6] *Hospital Alejandro Posadas, Buenos Aires, Argentina*
[7] *Clínica Anglo Americana, Lima, Perú*
[8] *Hospital Nacional Daniel Alcides Carrion, Callao, Perú*
[9] *Departamento de Gastroenterología. Facultad de Medicina Pontificia Universidad Católica de Chile, Chile*
[10] *Fundación Clínica Médica Sur, Mexico City, Mexico*
[11] *Hospital Clínico Universitario de Chile, Chile*
[12] *Hospital de Clínicas, Asunción del Paraguay, Paraguay*
[13] *Hospital Universitario de Maracaibo, Maracaibo, Venezuela*
[14] *Hospital de Especialidades Eugenio Espejo, Quito, Ecuador*
[15] *Universidad Nacional Pedro Henriquez, Santo Domingo, República Dominicana*
[16] *Servicios de Aparato Digestivo y Farmacología Clínica, Hospital Universitario Virgen de la Victoria,*

Instituto de Investigación Biomédica de Málaga-IBIMA, Universidad de Málaga, Málaga, Spain. CIBERehd, Madrid, Spain

Introduction: In 2011, the Latin-American DILI-Network (LATINDILIN) set up under the guidance of the Spanish DILI Registry a network of hepatologists to prospectively identify and characterize DILI patients.

Aim: To evaluate the drugs more frequently associated with DILI in LA, clinical phenotype and outcome.

Methods: Demographics, clinical and biochemical parameters of all cases included in the LATINDILI Network were analysed according to the type of liver injury (hepatocellular, Hep; cholestatic, Chol and mixed, Mix).

Results: 404 DILI cases were included. Anti-infectives (31%), musculoskeletal system drugs (13%) and herbal products (9.2%) were the main causative therapeutic drug classes. Mean age was 49 years (female sex, 61%). Hep injury predominated (62%) whereas Chol and Mix patterns were 24% and 15% of cases, respectively. Chol patients (mean age 56y) were older than Hep and Mix cases (47 and 50, $p<0.05$). Jaundice was more prevalent in Chol and Mix injury than in Hep cases (65% vs 75% vs 58%, respectively, $p=0.062$), though no differences in hospitalization rates were observed (Hep 43%, Chol and Mix 46%, $p=0.867$). Of note, 12 cases, mostly Hep, had a positive rechallenge. Positive autoantibodies were more common in Hep cases (25% vs Chol 9.1% vs Mix 19%, $p=0.010$), with nitrofurantoin/herbal products as the most common causative agents. Hep cases showed a higher risk of severe/fatal injury (18% vs 6.0% and 1.8% in Chol and Mix cases, respectively, $p<0.001$). The new Hy's law performed as expected, with 14% of ALF/Tx cases. Hep cases more frequently died from liver-related death (3.5%) compared with Chol (1.1%) and Mix (0) cases.

Conclusions: In Latin-American DILI cases with Hep pattern predominated, showing a higher severity and most frequent inadvertent re-exposition. The LATINDILI Network is proving as an important tool for the characterization of DILI singularities in this world region, and improvement of Public Health.

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OP-1 GUT METATRANSCRIPTOMICS AND METABOLOMICS REVEAL ASSOCIATION OF CYSTEINE AND PURINE METABOLISMS WITH METABOLIC ASSOCIATED FATTY LIVER DISEASE (MAFLD)

Noelia Mazzini Flavia[1], Florencia Mascardi María[1,**], Ruda Vera M.[2], Shilpa Pandit[3], Leandra Mansur[2], Yanqun Wang[2], Gounarides John[2], Cook Frank[2], Sebastián Marciano[4], Leila Haddad[4], Jesica Tamaroff Ana[5], Paola Casciato[4], Adrián Narvaez[4], Margarita Anders[6], Federico Orozco[6], Susana Gutt[5], Adrián Gadano[4], Celia Méndez García[7], Martin Marro[3], Alberto Penas Steinhardt[8,*], *Julieta Trinks*[1,*]

[1] *Instituto de Medicina Traslacional e Ingeniería Biomédica (IMTIB)-CONICET – Instituto Universitario del Hospital Italiano (IUHI) – Hospital Italiano de Buenos Aires (HIBA), Ciudad Autónoma de Buenos Aires, Argentina*

[2] *Biotherapeuticand Analytical Technologies, Novartis Institutes for Biomedical Research, Cambridge, MA, United States of America*

[3] *Cardiovascular and Metabolic Disease Area, Novartis Institutes for Biomedical Research, Cambridge, MA, United States of America*

[4] *Liver Unit of Hospital Italiano de Buenos Aires, Ciudad Autónoma de Buenos Aires, Argentina*

[5] *Nutrition Department of Hospital Italiano de Buenos Aires, Ciudad Autónoma de Buenos Aires, Argentina*

[6] *Liver Unit of Hospital Alemán, Ciudad Autónoma de Buenos Aires, Argentina*

[7] *Chemical Biology & Therapeutics, Novartis Institutes for Biomedical Research, Cambridge, MA, United States of America*

[8] *Universidad Nacional de Luján, Departamento de Ciencias Básicas, Laboratorio de Genómica Computacional, Luján, Buenos Aires, Argentina*

Background: The gut microbiome represents a niche for biomarkers discovery to risk-stratify MAFLD patients. However, each population may have unique microbiome signatures and studies are needed in Latin America where MAFLD prevalence and severity are high.

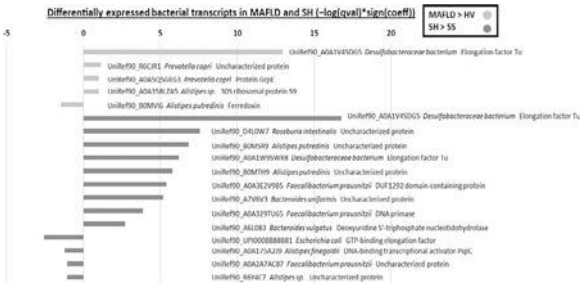
Aims: To identify gut metatranscriptome and metabolome signatures associated with MAFLD and steatohepatitis (SH) in Argentina.

Methods: Stool samples, diet, demographic and clinical data were obtained from 33 biopsy-proven patients (12 simple steatosis -SS- and 21 SH) and 19 healthy volunteers (HV). PNPLA3 rs738409 SNP was genotyped. HPLC, flow injection analysis with MS/MS in tandem and MetaboAnalyst-v4.0 were used for metabolomics. RNA-seq was performed in NovaSeq6000®. bioBakery-v1.8 and Maaslin2-v1.2.0 were used for data analysis.

Results: BMI was higher in MAFLD patients, particularly in SH ($q=4.49e-06$). After adjusting for BMI, 89 and 53 gene family clusters were differentially expressed between HV and MAFLD and between SS and SH, respectively ($q<0.1$). Pathways related to sulfur oxidation, short-chain fatty acid metabolism, purine metabolism and lipopolysaccharide synthesis were enriched in MAFLD patients when compared with HV and in SH when compared with SS, whereas folate synthesis was enriched in SS patients ($q<0.1$). Gene expression associated with Desulfobacteraceae bacteria harbored most of the functional features of MAFLD patients when compared with HV, and of SH patients within the case group (Figure). The PNPLA3 GG genotype was related to decreased hydrolysis of glycerolipids, high expression of *Clostridium cadaveris* and low expression of Desulfobacteraceae bacteria associated genes ($q<0.1$).

Higher concentrations of xanthine, implicated in purine metabolism, and of the sulfur amino acid cysteine were detected in the stool of MAFLD patients when compared with HV, and of SH patients within the case group (BMI-adjusted $q<0.1$).

Conclusion: Cysteine and purine metabolisms are strongly related to MAFLD and SH in Argentinian patients. Cysteine and xanthine could be useful as potential biomarkers.



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* Both Authors Contributed Equally to this Study.

OP-2 IN VITRO CHARACTERIZATION OF HEPATITIS B VIRUS REPLICATION AND VIRAL ANTIGEN EXPRESSION AMONG GENOTYPES

Mercedes Elizalde[1], Micaela Martinez[1], Micaela Speroni[1], Luciana Tadey[2], Mammana Lilia[2], Bouzas Belen[2], Mojsiejczuk Laura[3], Campos Rodolfo[3], Diego Flichman[1]

[1] *Instituto de Investigaciones Biomédicas en Retrovirus y Sida, Buenos Aires, Argentina*
[2] *Unidad de Virología, Hospital de Infecciosas "Francisco J. Muñiz", Buenos Aires, Argentina*
[3] *Cátedra de Virología de la Facultad de Farmacia y Bioquímica de la Universidad de Buenos Aires, Buenos Aires, Argentina*

Background: Hepatitis B virus (HBV) has been classified into 10 genotypes (A-I) and numerous subgenotypes (SGTs). There is growing evidence that HBV genotypes (GTs) influence clinical outcomes, HBeAg seroconversion rates, severity of liver disease, and response to interferon therapy. However, there is a paucity of data regarding their distinctive biological characteristics, in particular for GTF, the most prevalent in Latin America.

Aim: To investigate the impact of HBV genotypes on HBV-DNA levels and viral antigen expression.

Materials and Methods: Full-length HBV genomes representing GTs A-D and SGTs F1b and F4 were transfected in Huh7 cell line. Secreted HBeAg and intra and extracellular HBsAg were quantified by EIA. HBV-DNA was analyzed by real-time PCR.

Results: Marked differences were observed in HBV replicative capacity as well as HBeAg and HBsAg antigen expression across genotypes (Table 1). GTC secreted significantly higher levels of HBeAg in relation to the other GTs. GTD showed lower HBsAg extracellular levels than all other GTs, while GTA showed the highest HBsAg intracellular levels. Finally, SGTs F1b and F4 showed significantly lower HBV-DNA levels. Regarding the ratio of extra and intracellular HBsAg, GTs A and D showed the lower ratios compared to SGTs F1b and F4, while SGTs F1b and F4 showed the highest HBsAg/HBV-DNA ratio.

Discussion: This study provides new insights into the impact of HBV genotypes on HBV antigen expression and HBV-DNA levels. The uneven expression of antigens, as well as their intracellular accumulation, could be associated with the role of genotypes in pathogenesis. Likewise, the extracellular levels of HBsAg and the replication rate might have implications in immunopathogenesis as well as in the exhaustion of the host's immune system. The virus-cell interaction in different genotypes deserves further study to understand its role in the pathogenesis of HBV infection.

Genotype	A	B	C	D	F1b	F4	P<0.001
HBeAg (S/Co)	17.5±1.3	ND	38.2±6.9	9.2±1.2	2.3±0.1	3.6±0.1	A vs F1b/F4 and C vs D, F1b and F4.
HBsAg							
Extracellular (IU/ml)	82.7±6.6	83.7±8.7	37.2±6.6	6.5±0.6	62.3±2.2	41.7±2.0	D vs all GTs.
Intracellular (IU/ml)	32.8±1.6	17.6±3.1	4.5±0.3	4.6±0.4	2.7±0.3	2.6±0.2	A vs C,D,F1b and F4.
Extra/intracellular	2.5	4.8	8.3	1.4	23.3	16.2	A and D vs C, F1b and F4.
HBV-DNA (10^4 copies/ml)	39.1±0.8	45.9±1.3	43.0±2.1	56.9±4.7	34.7±0.1	30.5±2.1	F1b / F4 vs A, B and D.
HBsAg/HBV-DNA	14.8	10.0	11.4	1.7	25.2	21.7	F1b / F4 vs A, B, C and D; D vs A, B and C.

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OP-3 LONG-TERM RIFAXIMIN IS SAFE AND ITS RELATED TO LESS FREQUENCY OF COMPLICATIONS LIKE VARICEAL BLEEDING IN CIRRHOTIC PATIENTS

Fátima Higuera-de-la-Tijera[1], Karen Soto-Martínez[1,2], Victor H. Fúnez-Madrid[1], José L. Pérez-Hernández[1], Graciela Alexanderson-Rosas[3], Alfredo Servín Caamaño[3]

[1] *Gastroenterology and Hepatology Department, "Hospital General de México Dr. Eduardo Liceaga", Mexico City, Mexico*
[2] *Superior School of Medicine, "Instituto Politécnico Nacional", México City, Mexico*
[3] *Internal Medicine Department, "Hospital General de México Dr. Eduardo Liceaga", Mexico City, Mexico*

Introduction: Is well established that rifaximin (RFX) is effective as secondary prophylaxis in patients with a previous episode of hepatic encephalopathy (EH); but recently, some studies have found that RFX is related to a lower frequency of other complications.

Aim: To evaluate the clinical effect of long-term prescription of RFX (more than 6 months) in cirrhotic patients, and also the possible adverse effects.

Methods: A case-control study nested in a cohort which included cirrhotic patients taking secondary prophylaxis with RFX because of history of a previous EH episode. From this cohort we abstracted two different groups, cases were those who continue taking RFX for more than 6 months, controls were those who suspended RFX before the first three months because of medical indication or by their own decision and therefore they did not continue the medication for long-term. The two groups were match by age, gender, decompensation of cirrhosis (Child-Pugh B/C), history in the last year of at least an episode of variceal bleeding (VB), infections, EH, ascites, also was considered the previous use of beta-blockers and diuretics in patients with ascites. Adherence to therapy was mandatory, it was evaluated through the simplified medication adherence questionnaire (SMAQ) in all patients.

Statistical analysis: Categorical variables were compared with X2 or Fisher's exact test, odds ratios and 95% confidence intervals were also calculated. Quantitative variables were compared with Student's t test. A $p<0.05$ value was considered significant. Considering the difference in incidence regarding the development of complications between the groups, we also calculate the number needed to treat (NNT) to prevent one event.

Results: A total of 139 cirrhotic patients who met the selection criteria were identified, of them, 58 were identified as cases taking long-term RFX (41.7%), and were matched with 81 controls without RFX (58.3%). The median time taking RFX was 8.5 months (range= 6-18). The mean dose identified in the medical prescriptions was 400 mg twice or thrice in day. Basal characteristics were similar in both groups (see Table). Patients taking long-term RFX had significant lower frequency of recurrence of EH (adjusted OR=0.2, 95%CI 0.1-0.4; p=0.003; NNT=3.4); and also regard the development of VB (adjusted OR=0.2, 95%CI= 0.068-0.6; p<0.0001; NNT= 4.8); despite no statistical difference, also there was a tendency to a less frequency of severe bacterial infections: RFX 1.7% vs. without RFX 8.6% (NNT= 14.5). There were no adverse effects related to the RFX prescription, neither multidrug resistant bacterial infections were documented.

Conclusions: Long-term use of RFX (more than 6 months) was associated with significant less development of VB, less recurrence of EH, and there was a tendency to a less frequency of severe bacterial infections. Mechanisms that could explain our findings are the modulation of intestinal microbiota, reduction of bacterial translocation, reduction of the inflammatory process and secondary regulation of the portal pressure, all of them possible mediated primarily or secondarily by RFX action.

Comparative table form basal characteristics of cirrhotic patients

Variable	Without rifaximin (controls n=81)	Rifaximin (cases n=58)	*P*
Age, year-old	58.7±11.5	60.7±8.9	0.26
Female, n (%)	47 (58)	31 (53.4)	0.59
Causes of cirrhosis, n (%)			
Alcohol	19 (23.4)	23 (39.6)	0.37
NASH	22 (27.2)	12 (20.7)	
HCV	11 (13.6)	7 (12.1)	
Autoimmune	9 (11.1)	5 (8.6)	
Other	20 (24.7)	11 (19.0)	
Descompensation (Child B/C), n (%)	50 (61.7)	42 (72.4)	0.20
Variceal bleeding, n (%)	32 (39.5)	25 (43.1)	0.67
Hepatic encephalopathy, n (%)	81 (100)	58 (100)	1.0
Ascites, n (%)	27 (33.3)	28 (48.3)	0.08
History of previous infections, n (%)	1 (1.2)	4 (6.9)	0.16
Beta-blockers use, n (%)	52 (64.2)	39 (67.2)	0.71
Diuretics use, n (%)	27 (33.3)	28 (48.3)	0.08

Univariate analysis: Frequency of complications developed during the follow-up, and comparison between groups

Variceal bleeding, n (%)	24 (29.6)	5 (8.6)	0.003*
Hepatic encephalopathy, n (%)	35 (43.2)	8 (13.8)	<0.0001**
Ascites, n (%)	20 (24.7)	17 (29.3)	0.54
Infections developed during follow-up, n (%)	7 (8.6)	1 (1.7)	0.14

* Long-term rifaximin was a protective factor to prevent the development of new episodes of variceal bleeding: non adjusted OR= 0.2 (95% CI= 0.08-0.6).

** Long-term rifaximin was a protective factor to avoid recurrence of HE episodes: non adjusted OR= 0.2 (95% CI= 0.09-0.5).

Multivariate analysis (logistic regression) adjusted for decompensated cirrhosis and use of beta-blockers to evaluate the effect of long-term RFX use on the development of variceal bleeding

Variables	*P*	Adjusted OR	95% CI	
			Inferior	Superior
Decompensated cirrhosis (Child B/C)	0.2	2.0	0.7	5.4
Use of long-term rifaximin	0.003	0.2	0.068	0.6
Use of beta-blockers	0.02	0.3	0.139	0.8
Constant	0.2	0.5		

Multivariate analysis (logistic regression) adjusted for decompensated cirrhosis, use of beta-blockers, diuretics/ascites, and infections to evaluate the effect of long-term RFX use on the recurrence of hepatic encephalopathy

Variables	*P*	Adjusted OR	95% CI	
			Inferior	Superior
Decompensated cirrhosis (Child B/C)	0.004	4.079	1.5	10.7
Use of long-term rifaximin	<0.0001	0.2	0.1	0.4
Use of beta-blockers	0.04	0.4	0.2	0.9
Use of diuretics/ascites	0.50	0.7	0.3	1. 8
Infections	0.74	1.3	0.3	6.4
Constant	0.25	0.6		

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OP-4 Current status of Liver transplantation in Latin America: The Latin-American ALEH special interest group, international Survey 2020

Rodrigo Zapata[1], Graciela Castro[2], Josefina Pages[3], Fernando Cairo[4], Oscar Imventarza[5], Alejandra Villamil[6], Paulo Bittencourt[7], Leonardo Schiavon[8], Alfeu de Medeiros Fleck Jr[9], Ricardo Villarroel[10], Oscar Varas[11], Juan Carlos Restrepo[12], Adriana Varon[13], Daniela Hernandez[14], Pablo Coste[15], Marcia Samada[16], Antonio Enamorado[17], Chong Ricardo[18], Byron Abad[19], Alvaro Urzúa[20], Rodrigo Wolff[21], Mario Uribe[22], Reginali Gorrea[23], Edgard Aguilera[24], Eira Cerda[25], Sergio Lopez[26], Marcos Girala[27], Martin Padilla[28], Marlene Pérez[29], Victoria Mainardi[30], Solange Gerona[31]

[1] *Coordinator, ALEH Liver Transplant SIG. Unidad de Trasplante, Clínica Alemana/Facultad de Medicina, Universidad del Desarrollo, Santiago, Chile*
[2] *Co-Coordinator, ALEH Liver Transplant SIG. Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubiran y Hospital Medica Sur, Ciudad de México, México*
[3] *Liver Transplant Unit, Hospital Universitario Austral, Universidad de Buenos Aires, Buenos Aires, Argentina*
[4] *Liver Transplant Unit, Hospital el Cruce, Hospital Británico, Buenos Aires, Argentina*
[5] *Liver Transplant Unit, Hospital Argerich, Hospital Garrahan, Stalyc Representative, Buenos Aires, Argentina*
[6] *Liver Transplant Unit, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina*
[7] *Liver Unit, Hospital Portugues de Salvador, Bahi, Brazil*
[8] *Universidad Federal de Santa Catarin, Florianopolis, Santa Catarina, Brazil*
[9] *Liver Transplant Unit, Hospital Moinhos de Vento, Irmandade de Santa Casa de Misericordia de Porto Alegre, Porto Alegre, Brazil*
[10] *Hospital San Juan de Dios, Santa Cruz de la Sierra, Bolivia*
[11] *Centro de Enfermedades Digestivas Varas Castrillo, Tarija, Bolivia*
[12] *Liver Transplant Unit, Hospital Pablo Tobon Uribe, Medellín, Colombia*
[13] *Liver Unit, Fundación Cardioinfantil, Bogota, Colombia*
[14] *Hospital México, La Oruca, San José, Costa Rica*
[15] *Hospital Rafael Ángel Calderón Guardia, San José, Costa Rica*
[16] *Centro de Investigaciones Medico-Quirúrgicas, La Habana, Cuba*
[17] *Programa de Trasplantes, La Habana, Cuba*
[18] *Liver Transplant Unit, Hospital de Especialidades Carlos Andrade Marin, Quito, Ecuador*
[19] *Transplant Coordinator, Hospital de Especialidades Arlos Andrade Marin, Quito, Ecuador*
[20] *Liver Transplant Unit, Hospital Clínico, Universidad de Chile y Clínica Santa María, Santiago, Chile*
[21] *Liver Transplant Unit, P. Universidad Católica de Chile, Santiago, Chile*
[22] *Liver Transplant Unit, Hospital Salvador, Hospital Calvo Mackena y Clínica Las Condes, Stalyc Representative, Santiago, Chile*
[23] *Hospital San Juan de Dios, Ciudad de Guatemala, Guatemala*
[24] *Hospital Clínica Viera, Tegucigalpa, Honduras*
[25] *Unidad de Trasplante Hepático, Hospital Central Militar, Ciudad de México, México*
[26] *Hospital Escuale Dr. Roberto Calderon, Managua, Nicaragua*
[27] *Universidad Nacional de Asunción, Asunción, Paraguay*
[28] *Department of Transplantation, Hospital Nacional Guillermo Almenara y Universidad Nacional Mayor de San Marcos, Lima, Perú*
[29] *Liver Transplant Unit, Hospital General de la Plaza de la Salud, Santo Domingo, República Dominicana*

[30] *Liver Transplant Unit, Hospital Central de las Fuerzas Armadas, Montevideo, Uruguay*
[31] *Liver Transplant Unit, Hospital de Clínicas y Hospital Central de las Fuerzas Armadas, Montevideo, Uruguay*

Introduction: Latin America (LA), is a geographical region with 20 countries homing 652 million people (10% world population), with a huge cultural, economic and developmental diversity. The ALEH (Asociación Latinamericana para el Estudio del Hígado) has driven the formation of a special interest groups (SIGs) to enhance the collaboration of health care professionals with common specialized interests in the field of hepatology.

Aims To increase knowledge of the current situation of liver transplantation (LT) in LA, and share experiences between countries.

Methods: During 2020, LA countries, were invited to nominate representatives to this SIG and also from the STALYC. Online ZOOM meetings were arranged to discuss a survey with more than 70 questions in relation to LT. A database with all the information was built in an excel file.

Results: 15 out of 20 countries completed the questionnaire by Jan/2021, representing the situation of 569 million inhabitants. The mean GDP (gross domestic product) per capita in 2019, was 14,573 USD, and the mean health expenditure was 6,3% of the GDP (1,6%-10,4%). Despite the lack of resources in LA, LT started early (Brazil: 1968) and currently 3,837 a total of LT are performed each year, with 12,5% with living donors (n=483). Over the last 50 years, 34,029 total LT have been performed in LA.

13 out of 15 countries (84%) perform DDLT and only 7 countries (46%) also LDLT. The allocation system is based in the MELD/MELD-Na system. The mean waiting time for cirrhotic patients is 276 days (with a waiting list mortality of 10-50%). The mean overall survival at 1 and 5 years after LT is 79,3% and 71,9%, which is similar to developed countries.

Conclusions: Access to LT in the region is very heterogeneous, with limited centers and resources to perform LT. Financial, human and material issues, a legal framework favoring organ donation and the procurement structure constitutes a major challenge to improve LT in LA. The collaborative sharing of experiences between countries and centers, may favor the development of guidelines for the region stimulating government initiatives to improve LT access, favoring justice and equity for patients with advanced liver diseases.

Table 1
Summary of current LT practices in LA (LT: Liver Transplantation; DDLT: Deceased donor LT; LDLT: Living donor LT; Rates: per million population; GDP: Gross domestic product; LOS: Length of stay of hospitalization for LT; Pop: Population; pp: per capita; Mill: Millions; Dom. Rep.: Dominican Republic; USD: US Dollars; Hosp: Hospitalization)

Country	Pop. 2019 (Mill)	GDP per capita 2019 (USD)	Number active LT centers	Total DDLT (2019)	DDLT Rate (2019)	Total LDLT (2019)	LDLT Rate (2019)	Cumulative Total LT up to Dec 31, 2019	Mean LOS (days)	Mean Costs LT (Hosp. in USD)
1.Argentina	44,5	23,040	32	463	10.2	41	0.9	6,952	-	15,000
2.Brazil	211,9	15,300	74	2177	10.2	304	1.4	27,167	18	20,600
3.Bolivia	11,3	9,110	1	0	0	4	0.3	6	10	55,000
4.Colombia	48,2	15,634	14	231	4.6	102	2	3,592	14	100,000
5. Costa Rica	5,1	20,443	3	19	3.8	0	0	163	13	-
6.Cuba	11,3	11,900	3	9	0.7	0	0	445	7	-
7.Chile	19,5	25,155	11	145	7.9	19	1	1,747	16	45,000
8. Ecuador	17,1	11,878	5	27	1.5	0	0	253	15	45,000
9.Honduras	9,6	5,981	0	0	0	0	0	0	-	-
10.Mexico	127	20,582	25	213	1.6	10	0.08	2,502	7	47,000
11.Nicaragua	6,4	5.646	0	0	0	0	0	0	-	-
12.Paraguay	6,9	13,246	1	2	0.3	0	0	14	16	30,000
13.Peru	32,6	13,416	4	46	1.4	1	0.09	382	22	64,500
14.Dom. Rep.	11	19,227	1	4	0.3	0	0	45	15	30,000
15.Uruguay	3,2	22,515	1	18	5.1	0	0	215	15	121,000
All Countries	566	14,573	143	3.354	5.85	483	0.84	34,029	13,8	52,100

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OP-5 IDENTIFICATION OF THE THERAPEUTIC WINDOW FOR USE OF STEROIDS IN SEVERE ALCOHOLIC HEPATITIS: A LARGE GLOBAL STUDY

Antonio Díaz Luis[1], Natalia Baeza[1], Francisco Idalsoaga[1], Eduardo Fuentes-López[2], Arnold Jorge[1,3], Carolina A. Ramírez[4], Dalia Morales-Arraez[5], Meritxell Ventura-Cots[5], Edilmar Alvarado-Tapias[5], Wei Zhang[6], Virginia Clark[6], Douglas Simonetto[7], Joseph C. Ahn[7], Buryskaseth[7], Tej I.T. Mehta[8,9], Horia Stefanescu[10], Adelina Horhat[10], Andreea Bumbu[10], Winston Dunn[11], Bashar Attar[12], Rohit Agrawal[13], Syed Haque Zhohaib[12], Muhammad Majeed[12], Joaquín Cabezas[14], Inés García-Carrera[14], Richard Parker[15], Berta Cuyàs[16], Maria Poca[16], German Soriano[16], Shiv K. Sarin[17], Rakhi Maiwall[17], Prasun K. Jalal[18], Saba Abdulsada[18], Fátima Higuera-De la Tijera María[19], Anand V. Kulkarni[20], Nagaraja P. Rao[20], Patricia Guerra Salazar[21], Lubomir Skladaný[22], Natália Bystrianska[22], Veronica Prado[23], Ana Clemente-Sanchez[5,24,25], Diego Rincón[24,25], Tehseen Haider[26], Kristina R. Chacko[26], Fernando Cairo[27], Marcela De Sousa Coelho[27], Gustavo A. Romero[28], Florencia D. Pollarsky[28], Carlos Restrepo Juan[29], Susana Castro-Sanchez[29], Luis G. Toro[30], Pamela Yaquich[31], Manuel Mendizabal[32], Laura Garrido Maria[33], Adrián Narvaez[34], Fernando Bessone[35], Marcelo Julio Santiago[36], Diego Piombino[37], Melisa Dirchwolf[38], Pablo Arancibia Juan[39], José Altamirano[40], Won Kim[41], Roberta C. Araujo[42], Andrés Duarte Rojo[5], Victor Vargas[43], Pierre-Emmanuel Rautou[44], Tazime Issoufaly[44], Felipe Zamarripa[45], Aldo Torre[46], Michael R. Lucey[47], Philippe Mathurin[48], Alexandre Louvet[48], Guadalupe García-Tsao[49], Alberto González José[50], Elizabeth Verna[51], Robert S. Brown[52], Roblero Juan Pablo[53], Juan G. Abraldes[54], Marco Arrese[1], Vijay H. Shah[7], Patricks S. Kamath[7], K. Singalashwani[8], Ramon Bataller[5], Juan Arab Pablo[1,*]

[1] *Department of Gastroenterology, Escuela de Medicina, Pontificia Universidad Católica de Chile, Santiago, Chile*
[2] *Department of Health Sciences, Facultad de Medicina, Pontificia Universidad Católica de Chile, Santiago, Chile*
[3] *Servicio Medicina Interna, Hospital el Pino, Santiago, Chile*
[4] *Departamento de Anestesiología, Clínica Las Condes, Santiago, Chile*
[5] *Center for Liver Diseases, Division of Gastroenterology, Hepatology and Nutrition, University of Pittsburgh Medical Center, PA, USA*
[6] *Division of Gastroenterology and Hepatology, University of Florida, Gainesville, FL, USA*
[7] *Division of Gastroenterology and Hepatology, Mayo Clinic, Rochester, MN, USA*
[8] *Division of Gastroenterology and Hepatology, Department of Medicine, University of South Dakota Sanford School of Medicine, Siouxfalls, SD, USA*
[9] *The Johns Hopkins Hospital, Department of Interventional Radiology, Baltimore, MD, USA*

[10] *Regional Institute of Gastroenterology and Hepatology, Cluj-Napoca, Romania*
[11] *University of Kansas Medical Center, KS, USA*
[12] *Division of Gastroenterology & Hepatology, Cook County Health and Hospital Systems, Chicago, Illinois, USA*
[13] *Division of Gastroenterology and Hepatology, University of Illinois, Chicago, Illinois, USA*
[14] *Gastroenterology and Hepatology Department, University Hospital Marques de Valdecilla, Santander, Spain; Research Institute Valdecilla (Idival), Santander, Spain*
[15] *Leeds Liver Unit, ST James's University Hospital, Leeds Teaching Hospitals NHS Trust, Leeds, UK*
[16] *Department of Gastroenterology, Hospital de la Santa Creu I Sant Pau, Ciberehd, Barcelona, Spain*
[17] *Institute of Liver and Biliary Sciences, New Delhi, India*
[18] *Department of Gastroenterology and Hepatology, Baylor College of Medicine, Houston, TX, USA*
[19] *Servicio de Gastroenterología, Hospital General de México, Universidad Nacional Autónoma de México, México*
[20] *Department of Hepatology, Asian Institute of Gastroenterology, Hyderabad, India*
[21] *Instituto de Gastroenterología Boliviano-Japonés, Cochabamba, Bolivia*
[22] *Division of Hepatology, Gastroenterology and Liver Transplantation, Department of Internal Medicine II, Slovak Medical University, F.D. Roosevelt University Hospital, Banská Bystrica, Slovak Republic*
[23] *Centre Hospitalier de Luxembourg, Luxembourg*
[24] *Liver Unit, Department of Digestive Diseases Hospital General Universitario Gregorio Marañón Madrid, Spain*
[25] *Ciberehd Centro de Investigación Biomédica en Red de Enfermedades Hepáticas y Digestivas Madrid, Spain*
[26] *Division of Gastroenterology and Hepatology, Montefiore Medical Center Bronx, NY, USA*
[27] *Liver Transplant Unit, Hospital el Cruce, Florencio Varela, Buenos Aires, Argentina*
[28] *Sección Hepatología, Hospital de Gastroenterología Dr. Carlos Bonorino Udaondo, Buenos Aires, Argentina*
[29] *Unidad de Hepatología del Hospital Pablo Tobon Uribe, Grupo de Gastrohepatología de la Universidad de Antioquia, Medellín, Colombia*
[30] *Hepatology and Liver Transplant Unit, Hospitales de San Vicente Fundación de Medellín y Rionegro, Colombia*
[31] *Departamento de Gastroenterología, Hospital San Juan de Dios, Santiago, Chile*
[32] *Hepatology and Liver Transplant Unit, Hospital Universitario Austral, Buenos Aires, Argentina*
[33] *Hospital Central San Luis, Argentina*
[34] *Liver Unit, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina*
[35] *Hospital Provincial del Centenario, Universidad Nacional de Rosario, Argentina*
[36] *Hospital de Emergencias, Villa el Salvador, Perú*
[37] *Servicio de Medicina Interna del Hospital de Emergencias Dr Clemente Alvarez de Rosario, Santa Fe, Argentina*
[38] *Unidad de Hígado, Hospital Privado de Rosario, Rosario, Argentina*
[39] *Departamento de Gastroenterología y Hepatología, Clínica Santa María, Santiago, Chile*
[40] *Department of Internal Medicine, Hospital Quironsalud, Barcelona, Spain*
[41] *Division of Gastroenterology and Hepatology, Department of Internal Medicine, Seoul Metropolitan Government Seoul National University Boramae Medical Center, Seoul National University Collegue of Medicine, Seoul, Korea*
[42] *Gastroenterology Division, Ribeirão Preto Medical School, University of São Paulo, 14048-900 Ribeirão Preto, SP, Brazil*
[43] *Liver Unit, Hospital Vall D'Hebron, Universitat Autonoma Barcelona, Ciberehd, Barcelona, Spain*
[44] *Université de Paris, Centre de Recherche Sur L'Inflammation, Inserm, U1149, CNRS, ERL8252, F-75018 Paris, France; Service D'Hépatologie, DHU Unity, DMU Digest, Hôpital Beaujon, AP-HP, Clichy, France; Centre de Référence des Maladies Vasculaires Du Foie, French Network for Rare Liver Diseases (FILFOIE), European Reference Network on Hepatological Diseases (ERN RARE-Liver)*
[45] *Gastroenterology, Juarez Hospital, Mexico City, Mexico*
[46] *Gastroenterology Department, Instituto Nacional de Ciencias Médicas y Nutrición "Salvador Zubirán", Mexico City, Mexico*
[47] *Division of Gastroenterology and Hepatology, University of Wisconsin School of Medicine and Publichealth, Madison, WI, USA*
[48] *Hôpital Claude Huriez, Services des Maladies de L'Appareil Digestif, Chru Lille, and Unité Inserm 995, Lille, France*
[49] *Section of Digestive Diseases, Yale University School of Medicine/VA-CT Healthcare System, New Haven/ West Haven, USA*
[50] *Gastroenterology Department. Hospital Universitario "Dr José E González" Universidad Autónoma de Nuevo León, Monterrey, Mexico*
[51] *Division of Digestive and Liver Diseases, Department of Medicine and Center for Liver Disease and Liver Diseases, Department of Medicine and Center for Liver Disease and Transplantation, Columbia University Irving Medical Center, New York, NY, USA*
[52] *Division of Gastroenterology and Hepatology, Weill Cornell Medical College, New York, NY, USA*
[53] *Sección Gastroenterología, Hospital Clínico Universidad de Chile, Escuela de Medicina Universidad de Chile, Santiago, Chile*
[54] *Division of Gastroenterology, Liver Unit, University of Alberta, Edmonton, Canada*

Background: Corticosteroids are the only effective therapy for severe alcohol-associated hepatitis (AH), defined as MELD score >20. However, there are patients who may be too sick to benefit from therapy.

Aims: To identify the range of MELD score within which steroids are effective treatment for AH.

Methods: Retrospective, international multi-center cohort study from 4 continents, including 3,380 adults with clinical and/or histological diagnosis of AH. The main outcomes were mortality at 30, 90, and 180 days. We used a discrete-time survival analysis model, and

MELD cutoffs were established using the transform-the-endpoints method.

Results: Median age was 49 [95% CI: 40-56] years, 76.5% male, and 79% had underlying cirrhosis. Most frequent ethnicities were Caucasian (45.3%), Hispanic (17.1%), Asian-pacific Islander (14.3%), and Indian (13.4%). Median MELD at admission was 24 [19-29]. Survival was 88% [87-89] at 30 days, 77% [76-78] at 90 days, and 72% [72-74] at 180 days. 1,225 patients (45%) received corticosteroids. In an adjusted-survival-model, corticosteroid use decreased mortality by 41% (HR=0.59, 0.47-0.74; p<0.001) at 30 days, but not at 90 or 180 days (HR=0.92 and HR=0.14, respectively; p=NS). Steroids improved survival only in patients with MELD scores between 21 (HR=0.61, 0.39-0.95; p=0.027) and 51 (HR=0.72, 0.52−0.99; p=0.041). The maximum effect of corticosteroid treatment (21-30% survival benefit) was observed with MELD scores between 25 (HR=0.58, 0.42 −0.77; p<0.001) and 39 (HR=0.57, 0.41−0.79; p<0.001)(Figure). No corticosteroid benefit was seen in patients with MELD >51. The type of corticosteroids used (prednisone, prednisolone, or methylprednisolone) was not associated with survival benefit (p=0.247).

Conclusion: Corticosteroids improve 30-day survival only among patients with severe AH, especially with MELD scores between 25 and 39.

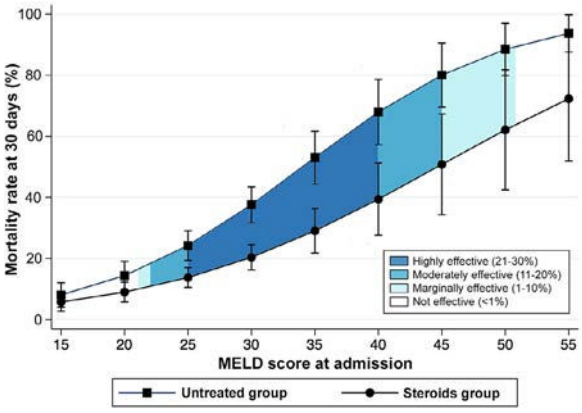

Figure.- Predictive model of survival adjusted by age, gender, ethnicity, cirrhosis, dialysis, and MELD score. The curves represent mortality per use of steroids and severity (MELD score)

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