

before randomization, septic shock requiring norepinephrine ( $>0.3\mu\text{g/kg/min}$ ) or a second vasopressor, active infection, and severe respiratory failure.

**Results:** Target enrollment is 380 ACLF patients at high risk of hospital mortality. The primary efficacy endpoint is the 90-day overall survival. Secondary efficacy endpoints include 90-day transplant-free survival and 28-day overall survival. Main exploratory endpoints include overall and transplant-free survival at days 28 and 90, in-patient hospital and ICU stay, incidence of organ failures and ACLF course. Safety analyses include adverse events, vital signs, physical assessments, and laboratory tests.

**Conclusions:** APACHE will provide pivotal results on the efficacy and safety of PE-A5% as a treatment to improve survival in ACLF (NCT03702920;EudraCT:2016-001787-10).

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### P-6 PREVALENCE AND CLINICAL CHARACTERISTICS OF LEAN NON-ALCOHOLIC FATTY LIVER DISEASE IN MÉXICO

Erick Augusto Jasso<sup>1</sup>, Jesús Alejandro Ruiz<sup>1</sup>, Antonio Olivas<sup>2</sup>, Luis Carlos Chávez<sup>1</sup>, Juan Adrian Torres<sup>3</sup>, Alfonso Fernández<sup>3</sup>, Abraham Ramos<sup>3</sup>, Josealberto Sebastiano Arenas<sup>3</sup>, Graciela Castro<sup>3</sup>, Aldo Torre<sup>3</sup>

<sup>1</sup> Hepatology and Liver Transplantation Unit, Department of Gastroenterology, Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán, CDMX, México

<sup>2</sup> Department of Biostatistics, University of Washington, Washington, USA

<sup>3</sup> Hepatology and Liver Transplantation Unit, Department of Gastroenterology, Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán, CDMX, México

**Introduction and Objectives:** Non-alcoholic fatty liver disease (NAFLD) is one of the main etiologies of chronic liver disease and is mainly observed in people with obesity and type 2 diabetes mellitus; however it is estimated that 7%-20% of individuals with NAFLD have lean body habitus (BMI  $<25\text{ kg/m}^2$ ). In México, the prevalence of NAFLD ranges from 41.3% to 47%; however, there is no data on lean NAFLD. This study aimed to estimate the prevalence of lean NAFLD in México and determine the clinical and demographic characteristics of the studied population.

**Materials and Methods:** A cross-sectional study to estimate the prevalence of NAFLD in the adult population was carried out in 5 states in México. History of metabolic and cardiovascular diseases, alcohol and tobacco consumption were collected; in addition, weight and height were measured. Lean NAFLD was defined as the presence of hepatic steatosis (grade 1 or higher) and a BMI  $<25\text{ kg/m}^2$ . To identify clinical and demographic characteristics associated with lean-NAFLD, the proportion of lean-NAFLD among subjects with NAFLD was compared between groups defined by each characteristic using a Pearson chi-square test.

**Results:** 3554 patients were included, the mean age was 47 years ( $\pm 12$ ), and 60% were women. NAFLD was found in 52% of the participants, from which 5.5% ( $n=195$ ) corresponded to lean NAFLD. 7.2% of patients with lean NAFLD had T2DM compared to 12% of patients with Non-lean NAFLD. Hypertension, 11% of patients with lean NAFLD presented it compared to 18% of patients with Non-lean NAFLD. Table 1 shows the characteristics of the study population.

**Conclusions:** The prevalence of LEAN NAFLD was 5.5%. We found that 1 of every 10 individuals with NAFLD corresponds to lean-NAFLD and that this relation is lower in those with hypertension and dyslipidemia but not in those with diabetes.

Characteristics	No NAFLD (n=1696)	Lean NAFLD (n=195)	Non-lean NAFLD (n=1663)	P value <sup>a</sup>
Age (years), mean (SD)	45 (13)	48 (14)	48 (11)	<0.001
Female, n (%)	1099 (65)	107 (55)	938 (56)	<0.001
BMI ( $\text{kg/m}^2$ ), mean (SD)	25.9 (3.9)	23.2 (1.8)	31.7 (4.8)	<0.001
Diabetes, n(%)	112 (6.6)	14 (7.2)	192 (12)	<0.001
Hypertension, n (%)	166 (8.8)	22 (11)	304 (18)	<0.001
CVD, n (%)	40 (2.4)	7 (3.6)	52 (3.1)	0.3
Obesity, n (%)	210 (12)	0 (0)	954 (57)	<0.001
Dyslipidemia, n (%)	342 (20)	43 (22)	542 (33)	<0.001
Mild alcohol consumption, n (%)	762 (45)	92 (48)	686 (41)	0.036
Smoking n (%)	359 (21)	43 (22)	341 (21)	0.8
MAFLD, n(%)	0 (0)	21 (11)	1663 (100)	<0.001
Steatosis, n (%)				
None (G0)	1696 (100)	0 (0)	0 (0)	
Mild (G1)	0 (0)	156 (80)	1065 (64)	
Moderate (G2)	0 (0)	37 (19)	531 (32)	
Severe (G3)	0 (0)	2 (1)	67 (4)	

SD, standard deviation; BMI, body mass index; CVD, cardiovascular disease; MAFLD, fatty liver disease associated with metabolic dysfunction. <sup>a</sup> Pearson's Chi-squared test

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### P- 7 RISK FACTORS FOR NON-ALCOHOLIC FATTY LIVER DISEASE AFTER LIVER TRANSPLANTATION

Marcelo Arouca<sup>1</sup>, Rafael Mendes<sup>1</sup>, Guilherme Grossi<sup>1</sup>, Mateus Jorge<sup>2</sup>, Henrique Drumond<sup>2</sup>, Livia Manussakis<sup>2</sup>, Luis Henrique De Oliveira<sup>2</sup>, Leticia Chaves<sup>2</sup>, Amanda Cássia Da Cruz<sup>2</sup>, Claudia Alves<sup>2</sup>, Luciana Costa<sup>2</sup>

<sup>1</sup> Serviço de Diagnóstico por Imagem, Hospital das Clínicas da Universidade Federal, Belo Horizonte, Brasil

<sup>2</sup> Faculdade de Medicina da Universidade Federal de Minas Gerais, Belo Horizonte, Brasil

**Introduction and Objectives:** Non-alcoholic fatty liver disease (NAFLD) is considered the liver manifestation of metabolic syndrome (MS) and is a common complication after liver transplantation (LT). This study aimed to assess the frequency of NAFLD and new onset diabetes after LT (NODALT), as well as associated risk factors.

**Materials and Methods:** 142 LT patients aged 18 years or older were included. We collected clinical, anthropometric, and laboratory data and performed hepatic ultrasound and elastography using 2D shear-wave technique.

**Results:** Of the participants, 62.7% were male (mean age  $60\pm 21$  years). Alcoholic cirrhosis was the primary cause of LT in 27% of cases. The mean change in weight after LT was  $+8.9\text{ kg}$ . Liver steatosis was

identified in 37 participants (26.1%). The proportion of obese or overweight individuals (73% vs. 56%), diabetes mellitus (65% vs. 38%), dyslipidemia (65% vs. 50%), and MS (65% vs. 39%) was higher in the group with hepatic steatosis compared to those without. In multivariate analysis, hypertriglyceridemia (OR=2.80, 95%CI 1.22-6.43, p=0.015) and NODALT (OR=2.65, 95%CI 1.15-6.10, p=0.022) were identified as risk factors for NAFLD. NODALT occurred in 44 individuals (31%) and was associated with time from LT (OR=1.009, 95%CI 1.003-1.015, p=0.004), current body mass index (OR=1.105, 95%CI 1.014-1.204, p=0.022), and fatty liver (OR=2.832, 95%CI 1.082-7.415, p=0.034). Prevalence of advanced chronic liver disease, according to elastography, was 11%. The concordance between non-invasive scores and 2D-SWE was very low, with only 38% for FIB4 and 31% for NFS when elastography indicated advanced fibrosis and 25% and 20% for FIB4 and NFS, respectively, when elastography indicated the absence of advanced fibrosis.

**Conclusions:** NAFLD, liver fibrosis and NODALT are common after LT. There is a need for improved non-invasive methods to accurately identify advanced fibrosis in LT patients.

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### P-8 OSTEOSARCOPENIA AND FIBROSIS SEVERITY IN NON-ALCOHOLIC FATTY LIVER DISEASE

Débora Soares<sup>1</sup>, Priscila Flores<sup>1,2</sup>,  
Maria Auxiliadora Saad<sup>1,2</sup>, Jenaine Rosa Emiliano<sup>1,2</sup>,  
Raphael Moura<sup>1,2</sup>, Rogério de Oliveira<sup>1,2</sup>,  
Amanda Maria Felix<sup>1,2</sup>, Jordanna Mendes<sup>1,2</sup>,  
Raul Silva<sup>1,2</sup>, Daniele Coutinho<sup>1,2</sup>,  
Carlos Roberto de Andrade Junior<sup>2</sup>

<sup>1</sup> Departamento de Medicina Clínica, Universidade Federal Fluminense, Faculdade de Medicina, Niterói, Brasil

<sup>2</sup> Serviço de Endocrinologia, Universidade Federal Fluminense, Hospital Universitário Antonio Pedro, Niterói, Brasil

**Introduction and Objectives:** Both osteosarcopenia and non-alcoholic fatty liver disease (NAFLD) are subject to complex and interconnected pathophysiological processes. This study aimed to assess the osteosarcopenia frequency in NAFLD and its association with liver fibrosis.

**Materials and Methods:** Adults with established risk factors for the development of NAFLD were selected. Assessment of NAFLD and degrees of fibrosis was performed by ultrasound (US-FLI) and ultrasound elastography. Quantitative assessment of muscle mass and bone mass density (BMD) were measured with dual energy X-ray absorptiometry (DXA). Low BMD was defined as established by WHO. Appendicular lean mass (ALM), representing the sum of lean mass at upper and lower limbs; appendicular lean mass index (ALMI: ALM/height<sup>2</sup>). Sarcopenia if ALMI <7.0 kg/m<sup>2</sup> men or <5.5 kg/m<sup>2</sup> women.

**Results:** 73 participants were enrolled, and hepatic steatosis was present in 58. All data are presented as median (IQR) or n (%). Age 63 (53-67) years, women 59(80.8%), 25(OH)D3 levels 26(22-31) ng/mL. The frequency of liver fibrosis (F 2), low levels of vitamin D (<20 ng/mL) and sarcopenia was, respectively: 16(22%), 14 (19%), 6(8%). We found low BMD in 43 (59%), of these 6(14%) osteoporosis, 35(81.4%) osteopenia and 2(4.6%) low BMD for age. The groups with and without fibrosis did not show differences in the levels or frequency of vitamin D deficiency or sarcopenia. However, participants with fibrosis had lower T-score and lower BMD in the lumbar spine and hip when compared to participants without fibrosis, p<0.05.

**Conclusions:** Our data suggest that the frequency of low BMD is higher in the population with NAFLD and high incidence of liver fibrosis than in the general Brazilian population. Evaluating by DXA, we observed that patients with liver fibrosis have lower bone mass, but not less muscle mass compared to patients without fibrosis.

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### P-9 AUTOIMMUNE LIVER DISEASES IN LATIN AMERICA: A WEB-BASED SURVEY

Claudia Alves<sup>1</sup>, Guilherme Grossi Lopes<sup>1</sup>,  
Debora Raquel B<sup>2</sup>, Eduardo Luiz Rachid<sup>2</sup>,  
Daniela Chiodi<sup>3</sup>, Javier Brahm<sup>4</sup>,  
Carlos Bernardo Sánchez<sup>5</sup>, Manuel Gatica<sup>6</sup>,  
Carmen Pollio<sup>7</sup>, Juan Diego De La Cruz<sup>8</sup>,  
Ezequiel Ridruejo<sup>9</sup>, Marcos Giralá<sup>10</sup>, Zuly Plácido<sup>11</sup>,  
Martin Padilla<sup>12</sup>, Gabriel Sebastian Diaz<sup>13</sup>,  
Gustavo Bresky<sup>14</sup>, Julissa Lombardo<sup>15</sup>,  
Diana Torres<sup>16</sup>, Harlim Rodriguez<sup>17</sup>,  
Melisa Dirchwolf<sup>18</sup>, Juanita Pérez<sup>19</sup>,  
Lesvia Arrunategui<sup>20</sup>, Nicolás Lama<sup>21</sup>,  
Fátima Higuera<sup>22</sup>, Cristiane Villela<sup>23</sup>, Mario Reis<sup>24</sup>,  
Walter Barriga<sup>25</sup>, Gonzalo Araneda<sup>26</sup>,  
Gisela Gualano<sup>27</sup>, Pedro Andrés Montes<sup>28</sup>,  
Vivian Rotman<sup>29</sup>, Rodolfo Antonio Ortiz<sup>30</sup>,  
Patricia Guerra<sup>31</sup>, Juan Antonio Otegui<sup>32</sup>,  
Alejandro Ferrada<sup>33</sup>, Maria Laura Garrido<sup>34</sup>,  
Mauricio Carrasco<sup>35</sup>, Alma Kuljacha<sup>36</sup>,  
Marco Sánchez<sup>37</sup>, Graciela Castro<sup>38</sup>,  
Viridiana López<sup>22</sup>, Ana Alicia Martínez<sup>39</sup>,  
Ruth González<sup>40</sup>, Gustavo Henrique<sup>41</sup>, Eira Cerda<sup>42</sup>,  
Alejandro Soza<sup>43</sup>, Mirta Peralta<sup>21</sup>, Diego Arufe<sup>44</sup>,  
Fernando Gómez<sup>45</sup>, Gustavo Calle<sup>46</sup>, Carlos García<sup>47</sup>,  
Scherezada Mejia<sup>19</sup>, Santiago Rodríguez<sup>48</sup>,  
Nicolas Jaquin Fernandez<sup>49</sup>, María Noel García<sup>50</sup>,  
Mario Guimaraes<sup>2</sup>

<sup>1</sup> Instituto Alfa de Gastroenterología, Hospital das Clínicas da Universidade Federal, Belo Horizonte, Brasil

<sup>2</sup> Departamento de Gastroenterología, Hospital das Clínicas da Universidade de Sao Paulo, Sao Paulo, Brasil

<sup>3</sup> Clínica de Gastroenterología, Hospital de Clínicas, UdelaR, Uruguay

<sup>4</sup> Departamento de Gastroenterología, Clínica Las Condes, Santiago, Chile

<sup>5</sup> Sección de Gastroenterología y Hepatología, Hospital Universitario Fundación Santafé de Bogotá, Bogotá DC, Colombia

<sup>6</sup> Gastroenterología y Hepatología, Gastroenterología y Hepatología, Guatemala, Guatemala

<sup>7</sup> Unidad de Gastroenterología, Hospital Maciel de Montevideo, Montevideo, Uruguay

<sup>8</sup> Departamento de Medicina Interna, Hospital Belén de Trujillo, Trujillo, Perú

<sup>9</sup> Hepatology Section, Department of Medicine, Centro De Educación Médica e Investigaciones Clínicas Norberto Quirno "Cemic", Buenos Aires, Argentina

<sup>10</sup> Departamento De Gastroenterología, Hospital De Clínicas Universidad Nacional De Asunción, Asunción, Paraguay

<sup>11</sup> Unidad de Gastroenterología, Hospital Nacional Edgardo Rebagliati Martins, Lima, Perú

<sup>12</sup> Liver Unit, Guillermo Almenara National Hospital. University Of San Marcos, Lima, Perú