The median (IQR) age was 60 years (53-63 years), MELD-Na 17 (15-21), creatinine 0.75 mg/dl (0.6-0.8) albumin 3.1 g/dl (2.9-3.1), INR 1.54 (1.4-1.75) and bilirubin 2.6 mg/dl (1.4-1.7). Child-Pugh scores were A/B/C 13%/58.7%/28.3% respectively. No differences in baseline characteristics were found between the groups. Notably, there was a significant improvement in LFI (median; IQR) in the intervention group (Figure 1) after 8 weeks LFI 3.74 (3.37-3.97) with LFI -0.86 vs. control group LFI 4.15 (3.94-4.23) with LFI -0.02, p=0.007) and after 12 weeks (intervention group 3.73 (3.31-4.11) with LFI -0.87 vs. control group LFI 4.14 (4.06-4.50) with LFI -0.03, p=0.023).

Conclusions: In this interim analysis nutritional and physical therapy improves LFI. This is the first randomized controlled trial with positive results in listed patients with cirrhosis.

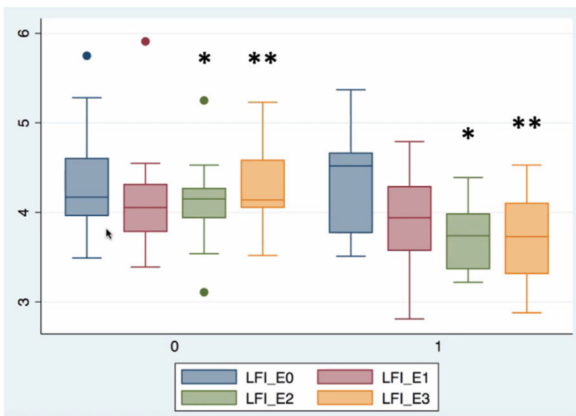

Figure 1. LFI of control group (0) and intervention group (1). LFI_E0: Baseline LFI; LFI_E1: LFI after 4 weeks; LFI_E2: LFI after 8 weeks. LFI_E3: LFI after 12 weeks.

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O-18 DIFFERENCES IN BODY COMPOSITION OF MAFLD PATIENTS ACCORDING TO BODY MASS INDEX AND METABOLIC PROFILE

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Introduction and Objectives: Body composition (BC) has been linked to liver steatosis. The aim of this study is to describe differences in BC in MAFLD patients.

Materials and Methods: Liver steatosis was evaluated by controlled attenuation parameter, patients were classified according to body mass index (BMI) and definitions of MAFLD in five groups: G1: <25kg/m2-non-MAFLD; G2: <25kg/m2-MAFLD; G3: 25-30kg/m2-MAFLD; G4:>30kg/m2-MAFLD and metabolically healthy (<3 metabolic abnormalities) (MH) and G5: >30kg/m2-MAFLD and metabolically unhealthy (MU). BC was assessed by bioelectrical impedance obtaining measurements of resistance; reactance; phase angle; percentages of fat; total body water (TBW%); intracellular and extracellular water (ICW%, ECW%) and skeletal muscle mass (SMM%). Differences in BC was analyzed by Kruskall-Wallis test. Continuous data showed as median and IQR.

Results: 140 patients were included (G1 n=30; G2 n=24; G3 n=30; G4 n=26; G5 n=30). 56.4% (n=79) were male with median of age of 49 [41- 55] years. Overweight/obese MAFLD patients showed significant lower resistance and reactance levels (p0.05). According to vectorial analysis, chaquexia was observed in 18.4% (n=7) of patients in G4 and 15.8% (n=6) in G5 patients. Fat% was higher in patients of G5 (MU) than G2 (34.3[29.8-40.4], p=0.02) and G3 (35[31.1-38.3], p=0.01). Obese MAFLD patients showed lower TBW%, ICW% and ECW% (p0.001). (Figure). SMM% was lower in MU obese patients (29.1[26.3-31.1]) compared to healthy controls (33.4[29.3-36.8], p=0.006) and overweight patients (32[29.7-34.4], p=0.02). Phase angle did not show significant differences.

Conclusions: Overweight/obese MAFLD patients shows BC abnormalities in comparison with healthy controls and lean MAFLD patients. Resistance, reactance, body water and skeletal muscle mass are significant lower in both metabolically healthy/unhealthy obese patients. Changes could be explained for the sarcopenia and fat-muscle interchange and no necessary for the presence of metabolic abnormalities.

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O-19 IMPLICATIONS OF GLYPHOSATE ON NON-ALCOHOLIC FATTY LIVER DISEASE IN MICE

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Introduction and Objectives: Non-alcoholic fatty liver disease (NAFLD) affects ~25% of the world's population, presenting a multi-axis pathogenesis closely related to westernized dietary (WD) patterns, and to metabolic comorbidities. In addition to WD, individuals are frequently exposed to crops and dairy products presenting glyphosate (Glypho) residues, the most used broad-spectrum herbicide worldwide. This study aimed to evaluate whether chronic Glypho exposure promotes WD-induced NAFLD.

Materials and Methods: Male C57BL/6J mice were fed WD (chow containing 20% lard, 0.2% cholesterol, 20% sucrose, and high sugar solution with 23.1/18.9 g/L of D-fructose/D-glucose), and received glyphosate (0.05, 5 or 50 mg/kg/day) by gavage (5 × /week) for six months. Doses were below/within the regulatory limits (Acceptable Daily Intake or No Observed Adverse Effect Level).

Results: Glypho did not promote WD-induced obesity, hypercholesterolemia, and glucose intolerance, as this herbicide did not exert major effects on WD-induced hepatic macro/micro vesicular steatosis and perivascular fibrosis. Nonetheless, Glypho at the higher dose (50 mg) exerted the most pronounced effects on enhancing CD68+ macrophage density, p65 (NF-B), TNF-, and IL-6 protein levels in the liver. Furthermore, this dose also decreased hepatic Nrf2 levels, while enhanced lipid peroxidation in the liver and adipose tissue. The hepatic RNASeq analysis revealed that Glypho at 50 mg upregulated 212 genes, while downregulated 731 compared to WD counterpart. Glypho upregulated genes associated to "xenobiotic metabolic process" (Cyp2c37, Cyp2c23, Cyp2c54, Cyp2b10, Cyp2c50, and Cyp2e1), directly involved in oxidative stress, as well as "positive regulation of immune response"-related mRNAs (Egfr, Ccl7, Cfd, C6, C8a, and C8b).