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**Introduction and Objectives:** Covid-19 presents as a multisystemic disease with described liver impact. MicroRNAs (miRNAs) are small non- coding RNAs which regulate different pathological processes, including hepatic conditions associated with SARS-CoV-2 infection. This study aimed to investigate serum miRNAs expression in patients with liver diseases according to the presence of SARS-CoV-2 infection.

**Materials and Methods:** Serum were obtained from 70 individuals from 4 groups: (i) hepatitis/Covid-19 (n=11); (ii) hepatitis-only (n=20); (iii) Covid- 19-only (n=19) and (iv) control subjects without both infections (n=20). MiRNAs were isolated from the samples using a commercial extraction kit. After reverse transcription, three miRNAs (mir122, mir143 and mir223) and exogenous control (mir39) were evaluated using relative quantification by real-time PCR. Statistical analysis was made using GraphPad Prism 9.5.1 software.

**Results:** There was a higher expression of mir122 in the liver disease group when compared to other groups. Statistical significance was founded in the lower expression of mir143 for hepatitis/covid group when compared to control (relative quantification average=0.55 vs. 2.10, p=0.0094) and covid-19-only (relative quantification average=0.55 vs. 3.19, p=0.0037). Mir223 showed a lower expression in groups composed of liver patients, with or without covid-19. Also, a statistical significance was observed for hepatitis-only group when compared to control (relative quantification average=1.1 vs. 7.52, p=0.0406) and covid-19-only (relative quantification average=1.1 vs. 12.94, p=0.0268). The same was suggested for hepatitis/covid-19 group when compared to control (relative quantification average=1.1 vs. 7.52, p=0.0009) and covid-19-only (relative quantification average=1.1 vs. 12.94, p=0.0006).

**Conclusions:** The different expression of these miRNAs has already been described in association with liver conditions. The description of the different expression of these markers will contribute to future studies that will evaluate associations with predispositions to clinical worsening, inflammation, or therapeutic failure in liver patients with covid-19.

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## P- 52 CORRELATION AMONG DIFFERENT METHODS TO ESTIMATE BODY AND LIVER FAT IN HEALTHY ADULTS

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**Introduction an Objectives:** An increase in body fat is a risk factor to develop fatty liver disease. Until now, few studies have related different methods to estimate body fat related to liver fat. We aimed to determinate the correlation among different methods to estimate body and liver fat in healthy adults.

**Materials and Methods:** In a cross- sectional study registered in ethics and research committees GAS3794 evaluating healthy adults; chronic illness, uncontrolled diabetes, hypertension or thyroid, bariatric surgery or pacemaker, were not included. The estimation of body fat (BF) was by 3 methods, two with bioelectric impedance of 19 frequencies (19F), 4 frequencies (4F) and the third by the Durnin-Womersley (DW) skinfold thickness formulae; also, were measured body mass index (BMI), waist circumference (WC) and visceral fat (VF). The liver fat was estimated by controlled attenuation parameter (CAP) using transitory elastography. Correlations were calculated with Pearson coefficient among body composition methods and CAP; each anthropometric isolated parameter was associated with hepatic steatosis grades by a logistic regression analysis using SPSS v21.0.

**Results:** In 231 participants, mean age was 41.8 years (SD 11.3), WC 91 cm (SD 12), BMI 27.8 kg/m2 (SD 4.6). 112 had some grade of steatosis (S3 n=72, S2 n=18). The correlation among 3 methods was on average r= 0.853 (p=0.000), and between CAP and BF was 0.290 (p= 0.000). BMI, WC, VF and suprailiac skinfold thickness showed correlations of r=0.570 (p=0.000), r=0.477 (p=0.000), r=0.393 (p= 0.000) y r= 0.471 (p=0.000) respectively. Regression analysis demonstrated that BMI (OR=1.32, p=0.000), WC > 80 women and > 90 cm men (OR=14.7, p=0.010), VF (OR=1.8, p=0.008) and suprailiac skinfold thickness (OR=1.14, p=0.000) showed association with steatosis.

**Conclusions:** Three methods were like to estimate body fat although they were not able to represent the liver fat; waist circumference was the best indicator related with steatosis

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## P- 53 NATURAL KILLER CELLS OF EARLY STAGES OF METABOLIC FATTY LIVER DISEASE PRESENT REDUCED CYTOTOXICITY AGAINST TUMOR CELLS. CASE- CONTROL ANALYSIS

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**Introduction and Objectives:** The liver is considered an important immunological site where natural killer (NK) cells mediate the immune response and tumoral immune surveillance. Understanding the involvement of NK cell function at different stages of metabolic fatty liver disease (MAFLD) is crucial to understand the oncogenic risk of MAFLD and hepatocellular carcinoma (HCC) carcinogenesis. This study aims to characterize the phenotype and function of peripheral NK cells in subjects with different stages of MAFLD.

**Materials and Methods:** We recruited 15 patients with non-cirrhotic MAFLD (NC-MAFLD), 18 with cirrhosis (CR-MAFLD), and 7 with HCC and compared them with 10 control subjects (HD). Peripheral blood NK cell analysis was performed using multiparametric flow cytometry to characterize NK cells in terms of maturation and function. LDH (lactate dehydrogenase) release assay was used to assess cytotoxicity against tumor cells in isolated NK cells. The results are expressed in percentages in Figure 1 with statistical analysis.

**Results:** NK cells from patients with NC-MAFLD have a significantly lower cytotoxic capacity than controls (HD=89.7% vs.