Tuesday, July 07th, 2022

Dr. Li Ma,
Science Editor, Editorial Office Director, Company Editor-in-Chief,
Editorial Office
World Journal of Hepatology

Dear Editor,

We are pleased to submit the revised version of our manuscript entitled "78062 - **Metabolic-associated fatty liver disease is associated with low muscle mass and strength in patients with chronic hepatitis B**". The manuscript was revised according to your instructions and comments of the reviewers. The corrections of the manuscript are underlined. After revising the manuscript, we sent it to a professional English language editing. Attached you will also find the response to all issues raised by the reviewers and a new language certificate**.**

We are grateful to you and to the reviewers for the comments and suggestions, we believe contributed to improve the paper.

Best regards,

Sincerely,

Luciana Diniz Silva, MD

Associate Professor,

Department of Internal Medicine Faculty of Medicine, UFMG, Brazil

Response to the Reviewers

Reviewer #1:

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Minor revision

Specific Comments to Authors: In general, patients with decompensated cirrhosis often have low muscle mass. Therefore, I read this manuscript with novelty. Using statistical research methods, this manuscript has brought me some new insights, although this finding needs to be further confirmed by mechanistic studies. According to the way of thinking of clinicians, I think that in this study the number of patients with cirrhosis included is small, and patients with decompensated cirrhosis are not included. I look forward to a study comparing the low muscle mass of three groups of patients, namely CHB patients, compensated cirrhosis patients, and decompensated cirrhosis patients.

We thank you for your helpful comments. Although the number of patients with cirrhosis are small, we demonstrated by using logistic regression models independent associations between the variables. We did not include patients with decompensated cirrhosis because the method used to assess the muscle mass, the whole-body dual-energy X-ray absorptiometry (DXA), is influenced by fluid overload. Thus, in order to obtain a more accurate results, Child-Pugh-Turcotte score was obtained from each patient and those who met Child-Pugh-Turcotte score ≥ 7 points and/or decompensated cirrhosis were not included in the study. Each patient underwent a detailed physical examination, particularly for the presence of bilateral lower extremity oedema and ascites. Additionally, all included patients had serum albumin levels ≥ 3.5 g/dL and absence of ascites confirmed by abdominal ultrasound. We also agree with you that mechanistic studies are further needed to confirm our findings.

Response to the Reviewers

Reviewer #2:

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Minor revision

Specific Comments to Authors: Thank you for inviting me to review this interesting work. The extensive and exhaustive evaluation of lifestyle, metabolic, and body composition work up are appreciated. Nonetheless, I have some comments as follow:

1. The introduction part is somewhat lengthy; I suggest wrapping it up or rewrite it into no longer than 3-4 paragraphs.

We thank you for the comments and suggestions. We agree with you that the introduction of the paper is long, then, we wrapped it into 4 paragraphs.

2. In the methodology section, 2.1 it is not clear whether all patients underwent USG and liver biopsy, or just some

We apologise for the imprecision in the sentence, we rephrased the sentence as follows: "Concerning hepatic steatosis assessment, all patients included in this investigation underwent liver ultrasound evaluation and in 41 (39.0%) patients the liver biopsy was also available for the analysis of fatty liver presence. In the MAFLD group, hepatic steatosis was diagnosed by ultrasound in 17/29 (58.6%) patients and by combined assessment, histological analysis and ultrasound, in 12 (41.4%) patients. HSI [Median (interquartile range, 25th - 75th percentile)] was significantly higher in MAFLD [42.5 (37.6 - 44.8)] compared with non-MAFLD [34.8 (30.9 - 40.4); p <0.001] group." We added the sentence in the subitem *Characteristics of the study population* in **Results** section of the text.

2.2. What is the time difference between USG, liver biopsy, laboratory evaluation, and DXA, as well as the interview? As hepatic steatosis might change overtime according to lifestyle intervention, providing the time frame between the DXA and USG/liver biopsy test is important.

We agree with you that the time difference between USG, liver biopsy, laboratory evaluation, and DXA, as well as the interview is utmost relevant. To improve the accuracy of the results, biochemical evaluation, abdominal ultrasound, liver biopsy, DXA, interview as well as lifestyle evaluation, anthropometric assessment and nutritional status were obtained from each patient at the time of her or his inclusion in the study. We added the sentence to the Patients and Methods section of the manuscript, just before *Statistical analysis*.

3. The definition of MAFLD no longer exclude alcohol drinking, why do you have to exclude 3 patients from the analysis?

We agree with you and we included the three patients in the multivariable analysis. Thus, MAFLD and central obesity were independently associated with low muscle mass and strength.