

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Hepatology*

**Manuscript NO:** 74061

**Title:** Relationship between the phase angle, steatosis, and liver fibrosis in patients coinfectd with human immunodeficiency virus/hepatitis C virus

**Provenance and peer review:** Invited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 04122997

**Position:** Peer Reviewer

**Academic degree:** MSc, PhD

**Professional title:** Associate Professor

**Reviewer's Country/Territory:** Malaysia

**Author's Country/Territory:** Brazil

**Manuscript submission date:** 2021-12-12

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2021-12-13 06:11

**Reviewer performed review:** 2021-12-22 01:17

**Review time:** 8 Days and 19 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input checked="" type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

<b>Peer-reviewer statements</b>	Peer-Review: [ <input checked="" type="checkbox"/> ] Anonymous [ <input type="checkbox"/> ] Onymous Conflicts-of-Interest: [ <input type="checkbox"/> ] Yes [ <input checked="" type="checkbox"/> ] No
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## SPECIFIC COMMENTS TO AUTHORS

**Introduction:** This study aimed to assess the relationship between phase angle (PA), steatosis and liver fibrosis in HIV/HCV coinfecting patients. A total of 43 HIV/HCV coinfecting patients from a tertiary reference centre in Brazil was evaluated. The authors found that there was no significant correlation between fibrosis grade with PA and lean mass as well as CAP (controlled attenuation power) with PA. However, significant inverse correlation was found between CAP and lean mass. On the other hand, a significant positive correlation was found between PA and lean mass whereas a significant negative correlation was observed between PA and fat mass. There was no correlation between PA and CAP. When evaluated by gender, no correlation was observed between PA with lean mass, fat mass and CAP. The authors concluded that PA determines muscle functionality in patients coinfecting with HIV/HCV, and CAP value reinforce the association with lean muscle mass, suggesting patients who need early nutritional intervention.

**Merits:** This study has some merits. The title of the paper reflects its content. The keyword use reflect the focus of the manuscript. The English used is understandable but has some errors in spelling throughout the manuscript which requires cross-checking (For example in the abstract: the word 'conveniencev' should be spelled as 'convenience'; in methods: the word 'stabilishe' should be spelled as 'established' etc.). The method and statistical test used is generally appropriate and would require further description and elaboration. In addition, this study provides a better understanding on the relationship between PA with steatosis and liver fibrosis in patients co-infected with HIV/HCV.

**Specific comments:** 1. Abstract a. Lean muscle and fat mass stated in result was not reflected in the study aim statement. b. There is

no clear description in the methods section pertaining the way to assess muscle functionality. Expand the write up in the method section. c. HCV-suggest providing in expanded form of the abbreviation during the first use (i.e., Hepatitis C virus). d.

CAP-suggest providing in expanded form of the abbreviation during the first use (i.e., controlled attenuation parameter). e. Method: state what statistical test was employed. f. Results: suggest stating the r-value (to better indicate the direction and strength of the association) and p-value for all correlation findings. 2. Introduction

a. It would be good if the authors could add few lines to explain physiology of advanced HIV/AIDS in relation to development of malnutrition. b. The authors stated that the nutritional assessment method in patients with liver disease has limitations due to difficulties with reproducibility and the lack of gold standard method. Further elaboration and examples are needed to strengthen the problem statement. Suggest providing few examples on the current nutritional assessment methods available for patients with liver disease (e.g., anthropometric measurements? Biochemical measurements? Subjective global assessment?). c. Include data/information pertaining to the prevalence of malnutrition in patients living with HIV to indicate the seriousness. d. Some statement would require citations. Example " In patients coinfectd with HIV and chronic hepatitis C virus (HCV) (HIV/HCV), not only the natural history of the disease, but the clinical treatment and previous clinical conditions significantly compromise the body homeostasis" 3. Methods: a. Methods section need to be reorganised based on subheadings to improve clarity (Study design; subject selection criteria; sample size; diagnosis of HIV/HCV; staging of liver fibrosis; anthropometric measurement; BIA measurement; statistical test). b. Suggest to follow STROBE statement/checklist for clear reporting. c. It is unclear on the study design that was employed in this study. The study design stated in the abstract was retrospective observational study design whereas in the methods and discussion section, prospective

observational study design was stated instead. Suggest author to relook on the statement.

d. Please provide sample size required and how it was calculated (which formula was used). e. The author stated that PA was classified according to the cut-off point of  $5.4^{\circ}$ , based on the reference parameters of the study by Fernandes et al (Page 7). However, this piece of information was missing in the result section. f. Pearson's chi square test statement that was mentioned in Page 7 (Pearson's chi-square was used to assess the association between CAP and BIA,...) was not reported in the result section. g. Suggest providing the model/type/brand of stadiometer that was used h. To state whether the BIA (Biodynamics,model 450) used was a single- or multi-frequency device i. Please state at which frequency phase angle was measured j. State individually what are the BIA parameters being evaluated besides phase angle. Was phase angle the only parameter derived from BIA? How about lean mass and fat mass? Are they measured using BIA as well or by anthropometric measures? k. Provide more elaboration/description on what does F2, F3 and F4 indicates for staging of liver fibrosis l. Include scoring/cut-offs for CAP which indicates the severity/degree of steatosis for reader to get a better understanding on how steatosis was being categorized. m.

Elaborate more on the parameters evaluated using student t-test n. The result for Pearson correlation (continuous variables) was depicted in Table 2 but was not stated in the statistical test section under methods. Only Spearman correlation test statement was being reported. 4. Results a. Descriptive results in Table 1 were not completely described in text. (For example: lean muscle mass, fat mass, CAP score, BMI). Please expand the write up. b. It is unclear how patients were divided into two groups fibrosis grades of F0-2 and F3-4 for t-test. What is the basis of this group division? c.

Suggest including flow diagram of patient recruitment. d. Provide measurement unit for phase angle ( $^{\circ}$ ). e. Provide measurement unit for lean mass (%). f. To present the result of student t-test in table format as well. g. Include both r-value and

p-value for all correlation findings in text. h. Table 1: suggest removing height and weight as it provides redundant information with BMI. i. Any statistical test conducted for BMI or only descriptive analysis was performed? j. Suggest to provide a description in text on how severe the degree of steatosis based on the mean CAP score of  $241.1 \pm 55.7$  (Table 1). k. Table 2: Suggest to revise the correlation coefficient symbol used to represent Spearman test ( $\rho$  or  $r_s$ ), to distinguish from Pearson correlation test. l. Table 3: include measurement unit for phase angle, lean mass and fatty mass; include in table footnote whether Spearman or Pearson correlation was performed. 5. Discussion a.

Strengths-It is unclear what are the two important tools that are not operator-dependent being used in this study. How does it serve as a strength to this study?. Suggest author to revise the sentence for better readability. b. To provide reference for the sentence: One of the main clinical complications of advanced liver disease is protein-calorie malnutrition, which has a prevalence ranging from 10% to 100%, regardless of the stage and etiology of the disease (Page 10).

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**Peer-review model:** Single blind

**Reviewer's code:** 05821532

**Position:** Peer Reviewer

**Academic degree:** MD, PhD

**Professional title:** Doctor, Senior Scientist

**Reviewer's Country/Territory:** China

**Author's Country/Territory:** Brazil

**Manuscript submission date:** 2021-12-12

**Reviewer chosen by:** Fei-Yan Lin (Online Science Editor)

**Reviewer accepted review:** 2022-03-04 02:45

**Reviewer performed review:** 2022-03-12 10:58

**Review time:** 8 Days and 8 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input checked="" type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input checked="" type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No



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<b>Peer-reviewer statements</b>	Peer-Review: [ <input checked="" type="checkbox"/> ] Anonymous [ <input type="checkbox"/> ] Onymous Conflicts-of-Interest: [ <input type="checkbox"/> ] Yes [ <input checked="" type="checkbox"/> ] No
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#### **SPECIFIC COMMENTS TO AUTHORS**

see the attachment