Reviewer's report

Title: The relationship between non-alcoholic fatty liver and skeletal muscle mass to visceral fat area ratio in women with type 2 diabetes

Version: 1 Date: 04 May 2019

Reviewer: Hidetaka Hamasaki

Reviewer's report:

The manuscript entitled "The relationship between non-alcoholic fatty liver and skeletal muscle mass to visceral fat area ratio in women with type 2 diabetes" shows that the decreased skeletal-to-visceral ratio (SVR) tertiles were associated with the presence of NAFLD in female patients with type 2 diabetes. This paper addresses an interesting and timely issue, and the findings of this study probably add a new insight regarding NAFLD to the current literature. However, there are some concerns to publish in the present form.

1. In the Background section, the authors stated that "...known as the skeletal-to-visceral ratio (SVR) to simply indicate sarcopenic obesity." This part needs a reference which shows the significant association between SVR and sarcopenic obesity.

2. The authors should show the reference number of this study protocol approved by the institutional review board.

3. How were height, weight, and waist circumference measured? Please describe them in more detail.

4. In the Methods section, the authors stated that "...there existed good connection between VFA...that measured by an abdominal computed tomography (CT)." However, this part also needs a relevant reference paper. In addition, the bioelectrical impedance analysis may underestimate VFA in obese subjects [Hamasaki et al. Curr Diabetes Rev. 2019, in press.]. The authors must discuss the discrepancy between VFA measured by bioelectrical impedance analysis and CT in the Discussion section.
5. The authors included course of hypertension, BMI, and waist circumference into potential confounding factors in the logistic regression analysis. The reviewer questions validity of this analysis. First, the authors should explain the reason why they include course of hypertension into confounders in the association between SVR and NAFLD. Second, if SVR was adjusted for BMI and waist circumference, there is a potential for multicollinearity with these variables.

6. Previous studies have shown that dietary intake and physical activity have a crucial role in the development of NAFLD. As the authors stated in the Discussion section, physical inactivity may account for the pathophysiology regarding the correlation of SVR with NAFLD. However, dietary intake and physical activity were not measured in this study. This is a major limitation of this study.

7. The authors should delete the sentence on page 10, line 7-9, ("Moreover, compared with…the risk of exposure to ionized radiation.") because this has nothing to do with the study.

8. Please correct typos in the manuscript.

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**Are the methods appropriate and well described?**

If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**

If not, please specify which controls are required in your comments to the authors.

Unable to assess

**Are the conclusions drawn adequately supported by the data shown?**

If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?  
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

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