Author’s response to reviews

Title: Gender difference in the impact of gynoid and android fat masses on the progression of hepatic steatosis in Japanese patients with type 2 diabetes

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Reviewer reports:

Indu Waidyatilaka (Reviewer 1): Gender difference in the impact of gynoid and android on the progression of hepatic steatosis in type 2 diabetes patients

General comment
The paper discusses an important and a timely area of research.

Specific comments
Title
Although the title describes the study adequately, the wording needs to be modified. Instead of "gynoid and android" the authors may use "gynoid and android fat masses". Please use "patients with type 2 diabetes mellitus" instead of "type 2 diabetic patients". More importantly since the study was done using only Japanese patients the authors will have to indicate that in the title.

Reply: As the reviewer’s suggestion, we changed “gynoid and android” to “gynoid and android fat masses” and “Japanese patients with type 2 diabetes" instead of "type 2 diabetic patients".

I would like to keep the term “type 2 diabetes” unchanged because type 2 diabetes has been used commonly in many articles published in top journals as below:


Efficacy of Liraglutide for Weight Loss Among Patients With Type 2 Diabetes: The SCALE Diabetes Randomized Clinical Trial. JAMA. 2015 Aug 18;314(7):687-99.

Abstract

Page 4, Line 26 and 29 - The authors may change "Gynoid (Kg) and android (kg)" to "Gynoid (kg) and android (kg) masses". Please make the necessary changes throughout the text for consistency.

Reply: As the reviewer’s suggestion, we corrected “gynoid and android” to “gynoid and android fat masses” throughout the text.

Page 4, Line 29 and 32 - "One year changes in LAI, gynoid and android were evaluated by gender." Please rephrase the sentence.

Reply: We rephrased the sentence as below:

One year changes in LAI, gynoid and android were evaluated in both male and female patients.

Page 5, Line 6 - Conclusions- Please indicates that the results of the current study are valid only for a Japanese population.
Reply: We changed the conclusion of the abstract as follow:

This study provides evidence that increased gynoid fat mass may be protective against the progression of NAFLD in female Japanese patients with type 2 diabetes.

Background

Page 6, Line 16 - Please change "diabetes" to "diabetes mellitus" throughout the article.

Reply: As mentioned above, type 2 diabetes has been used commonly in many articles published in top journals. Furthermore, diabetes has recently been used in the BMC Obesity as well (BMC Obesity 2016;3:19. BMC Obesity 2017;4:10.). Taken together, I decided to keep “diabetes” unchanged.

Page 6, Line 56 - Do the authors mean "regardless of the weight of the person"?

Reply: Exactly. I changed “regardless of normal weight” to “regardless of the weight of the person”.

Page 7, Line 20 - Please delete the word "which".

Reply: I deleted “which” in the sentence.

Methods

Page 8, Line 34 and 36 - Please mention a reference in justifying why the authors chose these limits.

Reply: We added the following articles as references.


"Finally, 294 patients were enrolled in this …..The authors may change the sentence as "The final sample included 294 patients ….."

Reply: As the reviewer’s suggestion, we changed the sentence.

"The median with ….."Please rephrase this sentence.

Reply: We rephrased the sentence as below:

The interval (median with interquartile range) between the first and second measurement of the DXA and abdominal CT were 1.02 (0.93-1.39) and 1.00 (0.90-1.09) years, respectively.

It is not clear whether the authors have used the existing reports of these patients where the tests have been done during 2012 and 2016 or a fresh study was done using whole body DXA once the participants were recruited. Please clarify and include the clarification in the text.

Reply: We used the existing reports of the DXA undergone during 2012 and 2016 for the assessment of body composition including gynoid and android fat masses in this study. Thus, we newly added the following sentence in the last part of the paragraph.

“In this study, the existing reports of the patients where the DXA has been done during 2012 and 2016 were used.”

Please change "the following" as "as follows".

Reply: I changed “the following” as “as follows”.

Were the questionnaires pretested? If so where and on whom?

Reply: I am sorry that we obtained these information, using medical record. Therefore, I changed the sentence as below:

Information on alcohol intake, smoking, medication and past history were obtained from medical record.

HbA1c - Please use the proper subscript \(\text{HbA1c}\).
Reply: I carefully read the submission guidelines of BMC Obesity. However, there are no information regarding how hemoglobin A1C should be described. In addition, in a recent article published in BMC Obesity (BMC Obesity 2016;3:51), hemoglobin A1C was shown as “HbA1c” as well as in our manuscript.

You mean Hemoglobin A1C should be described as HbA1C?

Results

Page 12, Line 2 - Please change "…….associated with that in LAI in female but not in male patients with type 2 diabetes.…." to "…….associated with LAI in female but not in male patients with type 2 diabetes mellitus.…."

Reply: As the reviewer’s suggestion, we deleted “that in”. As mentioned above (please see the comments and reply in title and background), we kept “diabetes” unchanged.

Discussion

Page 15, Line 39 - Please change "generalization" to "generalizability".

Reply: I agree with the reviewer. I changed "generalization" to "generalizability".

References

It would be good but not essential if the authors can cite more recent literature than given here. At a glance there were only about 5 references to articles published in or after 2015.

Reply: Although I agree with the reviewer’s comments, we basically selected important articles and most of them have come out prior to 2015. We would like to leave these articles.

Finally, please edit the manuscript for punctuation, grammatical and typographical errors. Although there are relatively very few, they need to be tidied up.

Reply: We carefully checked the manuscript again and edited it.
Piyusha Atapattu (Reviewer 2): This is a well-written paper. However, instead of using the terms gynoid and android (which are actually adjectives), the clarity and readability of the paper would improve if android/ gynoid fat mass is used throughout, including the title, unless the terms android and gynoid alone were used for a specific purpose. The term 'gynoid fat' has been used in page 7 (line 36) once.

Reply: I agree with the reviewer’s comments. We changed “android/gynoid” to “android/gynoid fat mass” throughout the manuscript. Thank you so much for your insightful comments.

Disregard my comment on controls as this study does not require controls.

More details would be useful regarding the following:

1. liver attenuation index

Reply: As the reviewer’s suggestion, we provided more detailed information on the measure of LAI in the revised manuscript.

2. methodology -it is stated as a retrospective observational study - does it mean that all investigations were obtained from hospital records? Were the findings on DEXA and CT obtained from previous records or were they new findings? What about the other measurements? The questionnaire, examination and some investigations appear to have been done anew. Please clarify the methodology

Reply: Thank you for your important comments. All investigations were obtained from medical records. Thus, we newly mentioned it in the study design of the revised manuscript.

Please state the abbreviations at each table (e.g. e-GFR is not defined in table 2) -even if they have been described in body text.

Reply: Thank you for your careful review. I checked again abbreviations.