Reviewer's report

Title: The relationship between DXA-based and anthropometric measures of visceral fat and morbidity in women.

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Reviewer: carla lubrano

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Congratulations for a well conducted study.
Please find attached some suggestions to hopefully improve the manuscript.

Minor essential revisions:
1. It is not clear whether the study is cross sectional or prospective. The different steps of the study should be better characterized.
2. Introduction (page 4), the Authors claim that only abdominal adiposity is strongly associated with cardio metabolic comorbidities, however, other parameters or indices of body fat distribution obtained by DXA evaluation are strictly related to cardiovascular and metabolic risks, particularly those that take into account limbs and neck fat (PLoS One. 2012;7(10):e47059. doi: 10.1371/journal.pone.0047059). Please comment.
3. Introduction, page 5, the causal relationship is not evaluable by longitudinal assessment and through logistic regression of cross sectional data. The correct terms are “association” or “correlation”.
4. Subjects and methods, page 8, it is not clear what it the meaning is for: “fasting oral glucose tolerance test > 11.1….? Probably the authors refer to a: 2 hour oral glucose tolerance test.
5. Conclusions, page 19, the sentence: “Similarly, in a longitudinal study, Hayashi et al. (2004) [37] showed visceral fat is significantly associated with hypertension and when visceral fat is adjusted for other adiposity measures (e.g. BMI, waist circumference or abdominal subcutaneous fat “sounds incomplete.
6. Conclusions, page 22, the DXA-based measures of visceral fat that are more reliable and valid, should be emphasized.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
'I declare that I have no competing interests