Reviewer’s report

Title: Comparison of visceral, body fat indices and anthropometric measures in relation to chronic kidney disease among Chinese adults from a large scale cross-sectional study

Version: 0 Date: 28 Aug 2017

Reviewer: Alex Chang

Reviewer's report:

The authors compare the relationship between various indices of obesity and CKD in a cross-sectional large study of Chinese adults. The fact that the authors used multiple indices to examine these relationships was a strength of the study. There are a few issues that need to be addressed as well English grammatical review.

Major issues:

1- In the adjusted analysis, models may be over-adjusted since hypertension and diabetes may be mediators of the relationship between BMI and CKD. Suggest reporting also results adjusted for age, smoking alcohol, education, marital status, living area.

2- The logistic regression ORs are hard to compare between metrics as it is unclear what the units are and how comparable they are to each other. I would report results for standardized coefficients.

3- Page 12, lines 12-17 - difficult to understand sentence. On the whole, I agree that PBF appears to be the best metric in this population in terms of predicting eGFR < 60. However, Pearson correlation coefficient for VFI higher than PBF in males. Also, showing the logistic regression with standardized coefficients as above would be helpful too.

4- Is there data on urine albumin/creatinine ratio, which is also considered for defining CKD? If so, would expand the analysis to examine this as well.

The main limitations of this study (cross-sectional design and use of BIA to estimate PBF and VFI) are acknowledged by the authors.
Minor issues:

Abstract - "Prevalence of CKD tended to increase with age" - this is a common observation, unnecessary to report in abstract

Is table 3 necessary to display? You could just describe how the AUC of the best performing metric in terms of ROC (PBF) compares to that of the other metrics in the text.

Table - can you clarify "Smoke", "drink"

How was higher education defined?

Review by a native English speaker is needed to correct grammatical errors, which include:

Page 5, Line 19 - remove "And"
Page 5, Line 27 - replace "were" with "have been"
Page 5, Line 33 - replace "reported" with "have reported"
Page 6, line 34 - don't start sentence with a number
Page 8 line 47 - what was being compared?
Page 8, line 58 - check spelling for Youden
Page 8, line 50 - replace thus with the

**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.

Yes

**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 am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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None

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