**Reviewer’s report**

**Title:** Differences in association of lower bone mineral density with higher coronary calcification in female and male end-stage renal disease patients

**Version:** 0  **Date:** 23 Oct 2018

**Reviewer:** Eiichiro Kanda

**Reviewer's report:**

In this study, the authors investigated the relationship between low bone mineral density (BMD) and coronary calcification using end-stage renal disease (ESRD) patients' data. The results suggest the usefulness of BMD to identify high-risk patients with cardiovascular disease (CVD). I have several concerns about the contents.

1. Is the main endpoint of this study CVD or CAC score? If CVD is more important than CAC score, the analysis should be focused on CVD.

2. Tables 1 and 2.

   The subjects were divided into two groups: developing CVD or not. Considering PECO (patient, exposure, comparison, outcome), "E" indicates low BMD. The subjects should be divided on the basis of low BMD. The design of this study is vague.

3. Figure 1

   This figure shows the accuracy of the indices to predict the existence of CVD. This is confusing. Do the authors want to show the relationship between CVD and CAC score? This is not the main theme of this paper.

4. Table 4

   GLM is used in this paper. What kind of GLM did the authors use; a multivariate linear regression model or a logistic regression model? If a multivariate linear regression model was used, the model is not appropriate because the BMD was not normally distributed.
5. Did the authors check the distributions of the variables?

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.
No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.
No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
No

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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

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