Reviewer’s report

Title: Cardiac valve calcification and risk of cardiovascular or all-cause mortality in dialysis patients: A meta-analysis

Version: 0 Date: 14 Feb 2017

Reviewer: Mohan Palla

Reviewer’s report:

Dear Editor,

Good Morning.

I am very thankful for giving me this opportunity of peer review of manuscript titled " Cardiac valve calcification and risk of cardiovascular or all-cause mortality in dialysis patients: A meta-analysis", submitted by Zhe Wang et al. I reviewed the manuscript with great interest and made the review below.

I would not accept this manuscript for publication because the meta-analysis performed doesn't include all the available data in the literature and the results should be interpreted with caution as there is missing data. Zhe Wang et al did not include the study mentioned below in the meta-analysis. In the sub-group analysis performed based on region, only two studies were included in case of the non-Asian studies. But there are total of three studies per author’s systematic review. The meta-analysis performed by authors is not complete and up to date. Please find my review regarding the manuscript below.


Review of Manuscript:

Methods:

The methodology for systematic review and meta-analysis follows Newcastle-Ottawa Scale (NOS) which is mainly for meta-analysis of observational studies.

This meta-analysis doesn't include all the available data in the literature and the results should be interpreted with caution as there is missing data. This is not an updated meta-analysis. The study performed by Sanchez-Perales C et al reported MI, stroke and/or died from cardiovascular causes in this patient population. Zhe Wang et al did not include this study in the meta-analysis. Please find the citation of the study below.

Results and Statistics:

In the sub-group analysis performed based on region, only two studies were included in case of the non-Asian studies. But there are total of three studies per author's systematic review. As the author did not present the details of individual studies in sub-group analysis, I cannot point out which study was not included.

The meta-analysis was performed using the outcomes measure - Hazards ratio. The study showed significant heterogeneity and the authors did sensitivity and subgroup analyses. However, the author did not mention how the subgroup analyses would explain the observed heterogeneity.

We cannot consider the results of this study as the meta-analysis does not include all the available data.

Discussion:

The discussion is poorly written. The authors did not summarize the important findings of their meta-analysis in the beginning of the discussion and I have to jump to conclusion to find out the main findings of the meta-analysis. The discussion should be rewritten.

As the meta-analysis is incomplete, both in main analysis and sub-group analyses, I would not like to point out each and every grammatical error.

The author mentioned in summary (last paragraph) - "this meta-analysis indicates that CVC is independently associated with higher all-cause and cardiovascular mortality in dialysis patients". The independent association cannot be mentioned because the data provided by some studies is not adjusted, the data included in the study is not the raw data (the study included the outcomes measure such as hazards ratio) and the meta-regression analysis is not performed.

Finally, with the help above mentioned points regarding the review of this manuscript, I would not accept this manuscript for publication.

Yours sincerely,

Mohan Palla, MD

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.

No

**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

**Declaration of competing interests**
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?
If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal.