Reviewer’s report

Title: CD133+ CELLS ARE ASSOCIATED WITH ADIPOCYTOKINES AND ENDOTHELIAL DYSFUNCTION IN HEMODIALYSIS PATIENTS

Version: 0 Date: 15 Dec 2016

Reviewer: Wei Chen

Reviewer’s report:

This is an interesting cross-sectional study of hemodialysis patients. The study examines the association of CD133+ cells with adipocytokines and cardiovascular parameters (using LMVI, FMD and CIMT). The main finding is that CD133+ cells were associated with inflammation and endothelial dysfunction in HD patients. The strength of the study is the findings of the novel relationships with CD133+ cells, as stated in the article. It is a hypothesis-generating study, and it suggests that CD133+ cells might play a role in endothelial dysfunction, which is early stage of atherosclerosis rather than in the advanced atherosclerosis.

1. For Table 1, please include participant characteristics by the CD133+ status (high vs. low), and the description of the participant characteristics should be discussed.

2. For Table 2, the methods for the linear regression model need to be stated in the article (under statistical analyses). Why were those covariates chosen? Were the assumptions of the model met? The units for the covariates need to be stated because without the units, the results cannot be interpreted. This is especially true for the covariate "gender".

3. Log-transformation of CD133+ should be stated in the statistical analysis section. In table 2, since the logCD133+ was used as a variable, the back transformation or geometric means of CD133+ should be discussed in the results.

4. The limitations of the study should be further discussed. Whether the study has sufficient power to detect a difference between CD133+ and CIMT should be discussed.

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.

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

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