Reviewer’s report

Title: The role of the adipocytokines vaspin and visfatin in vascular endothelial function and insulin resistance in obese children

Version: 0 Date: 30 Jul 2019

Reviewer: Aneta Monika Gawlik

Reviewer's report:

Thank you for asking me to review this paper from dr Yin et al. It is a clearly construction trial, in which the Authors have studied the association between the levels of selected adipokines (vaspin & visfatin) in 160 obese Chinese children and checked the correlation of these adipokines between each other and with the early onset metabolic and vascular sequelae. As a control group 84 lean children were involved. Both vaspin and visfatin levels were found to be significantly higher in obese children compared with the control subjects and presented positive correlations with the inflammation and markers of endothelial activation as well as between each other in overweight subjects.

Specific comments to Authors:

1. The title could be simplified eg. "Evaluation of the role of vaspin and visfatin in vascular endothelial function and insulin resistance in obese children"

2. The proposed title implying that both vaspin and visfatin are the main 'players' is not supported by presented results.

3. Methods/Subjects: Precise description of recruitment procedure for healthy population is required.

4. Methods/Subjects/Results: precise description of puberty stage in both obese and lean group is required.

5. Results/table 1: please check the SDS-BMI for lean group; 2.68±0.34 ??

6. Table 1: please add subjects' height

7. Page 9: Logic in the two following sentences?: "Also, vaspin and visfatin were positively correlated with BMI and SDS-BMI in obese children. These results differed from the previous studies conducted with adult samples which showed that the plasma vaspin and visfatin concentrations were significantly positively correlated with BMI and WC…"

8. Page 9: the part "But, in children, WC did not account for the differences in height…" is not clear
9. Reviewer has objections about using ABSI and VAI formulas in a pediatric population.

10. In order to check the vaspin / visfatin relationship with insulin resistance (IR) try to divide and compare to two groups with and without IR (using eg. HOMA-IR z-score as the IR surrogate).

11. Presenting figures without significant correlations is unnecessary.

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
**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/](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