Reviewer’s report

Title: Abdominal obesity and serum adiponectin complexes among population-based elementary school children in Japan: a cross-sectional study

Version: 1 Date: 31 January 2014

Reviewer: Rong Liu

Reviewer’s report:

Major compulsory revisions

This study aimed to investigate the association of adiponectin and abdominal obesity among 9-10 years old Japanese children. As few similar study using data on children has been published, the findings from this study should be helpful.

But I have some concern on its design and statistic methods as below.

1. The variable, adiponectin, was defined as categorical. But I was wondering whether you tried it as continuous variable, as a continuous variable usually embraces more information than the categorical one.

2. As you noticed sex as a cofounder, I hope to know if you can do the regression analysis with whole sample and using sex as a independent variable.

3. I feel the description and the writer’s understanding on the analysis result are not appropriate. In abstract, the author says "Abdominal obesity increased the odds ratio(OR) for each adiponectin isoform level less than or equal to the median value and the OR was higher for high molecular weight adiponectin.......in each sex;" However, from the result in Table 4, low MMW/low LMW did not linked with abdominal obesity in girls. Besides, as HMW, MMW and LMW were not assessed in the same model (did not compare them), you could not describe the comparison among them as in abstract or in result/discussion section. It seems the writer of the manuscript need more communicaiton with the statistician.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.