Reviewer’s report

Title: Waist circumference as a marker of insulin resistance in perinatally HIV-infected adolescents.

Version: 2 Date: 1 January 2015

Reviewer: George PrayGod

Reviewer’s report:

Major compulsory revisions

Title: the heading doesn’t fully catch the study objectives and findings. It suggests that the whole study was about looking at the association between waist circumference and insulin resistance. They should consider revising the heading. One option would be to have a more declarative heading or just a general heading.

Methods, data collection and statistical analysis

- Since this analysis is based on Madrid HIV cohort, it would be nice to provide a bit of more background of this main cohort. For example authors could add information on whether clinics involved in these were urban or semi-urban and the length of follow-up period.

- The text on inclusion criteria is very short. It is not clear if length of ARV use was one of criteria used for including patients in these analyses. This is important since the length of ARV use is likely to determine if patients develop complications or not.

- It would also be nice for authors to provide any details for exclusion criteria.

- One important piece of information which is missing is socio-economic status. If this was collected it would be nice to include this in the analyses as this could confound the relationship between insulin resistance with waist circumference.

- One other major aspect of this study is the selection of participants. It would be nice to provide information on whether the selection was random and how this was implemented. This will help readers judge if the findings are generalizable. If the selection did not ensure equal chance to take part in this study, it may suggest that the selection process may have been biased and this will compromise generalizability of your findings.

- The classification of abnormal glucose results did not seem to follow WHO guidelines. No mention if oral glucose tolerance test was done for patients with impaired fasting glucose results. It would be nice for authors to use WHO guidelines in proving results of glucose testing to enhance comparability with other studies or provide justification for not using WHO guidelines.

- In statistics section, it would be nice to describe how selection of variable into multivariable models was done. In the current version, it is not clear how this selection was done, this information will strengthen this section. Authors could...
also explore interactions between predictor variables in these models and report them if present

Discussion

-Except for IR, the prevalence of other metabolic abnormalities do not seem to be different from those for the background population. Authors need to highlight this more boldly.

-Good that authors describe other limitations of this study.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests