Reviewer’s report

Title: Associations between human leukocyte antigen polymorphisms and hypersensitivity to antiretroviral therapy in patients with human immunodeficiency virus: a meta-analysis

Version: 0 Date: 09 Jul 2018

Reviewer: Xia Zou

Reviewer's report:

This study explored the association between HLA polymorphisms and hypersensitivity to antiretroviral therapy in patients with HIV using meta-analysis methods. I have several questions and comments on this study.

1. Since hypersensitivity to antiretroviral therapy was the primary outcome of the study, it is important to give a clear definition of it. My concern is whether all studies included in the meta-analysis have clear and consistent definition on hypersensitivity? Or the authors defined by themselves? If it is the later one, how the authors identified it is hypersensitivity symptoms?

2. The authors stated that this study is following the STROBE checklist. I think it is better to provide the checklist form in the supplementary materials.

3. Random-effects models were employed in the meta-analysis regardless of the heterogeneities of the study. Could you please explain why do you choose random-effects model instead of fixed effects model?

4. The authors stated that they conducted sensitivity analysis and publication bias analysis, but no related results were shown in tables or figures, except for a sentence reporting "a sensitivity analysis indicated that the conclusion was not altered..." Could you please provide more details (statistics, figures or tables) about the results?

5. One of my concerns regarding the results is that some of the meta-analysis results were from a single study, it is not very conclusive. Additionally, we don't know which studies the results are from? Could you please provide information about source of the study? For example, provide reference in Table S2-S5. Or give more detail about which alleles were reported in each reference in table 1.

6. When the results were insignificant, it should be cautious to have a conclusion. We would not conclusive to say that one factor/allele did not affect hypersensitivity risk. It is possible that current studies did not have enough power to find the association.

Minor revisions:
1. Some typos exist. eg. Talbe etc.
2. Please avoid to use abbreviations in title.
3. The figure legends might be wrong (Fig 4).

**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

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