Reviewer's report

Title: Successful MDR-TB treatment regimens including Amikacin are associated with high rates of hearing loss

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Reviewer: Young Ae Kang

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Title:
Successful MDR-TB treatment regimens including Amikacin are associated with high rates of hearing loss

Major Compulsory Revisions

General
The authors analyzed the risk factors associated with development of hearing loss and the effects of amikacin-based regimens on the treatment outcomes of MDR-TB patients. They showed amikacin is effective for MDR-Tb treatment, but is associated with a high incidence of hearing loss.

Major comments

1. Results; page 9 line 1-2.
The authors stated that HIV infection, prior AT T and MDR-TB treatment, baseline renal failure and development of renal failure at any point during treatment were risk factors for poor treatment outcome (Table 4). However, in Table 4, renal failure and MDR-TB treatment were significant and others were not significant. Please, clarify this.

In addition, clarify that the treatment of MDR-TB means that prior history of MDR-TB treatment before the enrolled this study.

24. Results; page 9 line 3-4.
The value for aOR are different with Table 4.

3. Table 1.
If Table 1 shows the demographics of all participants (n=437) within the table, it will be more informative for the readers.
Classification of MDR-TB clinic (clinic1, clinic 2…) is not necessary, if they have the same protocol.
Footnotes for the abbreviation are needed.

4. Table 2.
The authors should clarify the description of number in the Table.
AOR (95% CI) is not appropriate. The authors should clarify the description as median or mean, IQR or range in the Table. Footnotes for the abbreviation are needed.

5. Table 4.
If the authors wanted the show the aOR for the good clinical outcome among MDR-TB patients, they need to revise the table 4 easy to read.
In addition, there are discrepancy between the statement in the text and table 4. Footnotes for the abbreviation are needed.

Minor comments
1. Results: page 8, line 11,
There are some typographical errors for %. There are discrepancies with Table 1.
Those with no documented hearing loss, treatment success was 60 (60%) whilst 29 (29%) were ...

2. Results: page 8, line 22-23.
The value of aOR for the duration and dosage of amikacin are different with Table 3.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests