Reviewer’s report

Title: Characterization of Non-Tuberculous Mycobacterium from Humans and Water in an Agro pastoral area in Zambia

Version: 1 Date: 03 Nov 2017

Reviewer: Shetty Ravi Dyavar

Reviewer’s report:

In this manuscript titled, "Characterization of Non-Tuberculous Mycobacterium from Humans and Water in an Agro pastoral area in Zambia", Monde et al isolated non tuberculous mycobacterium species from humans and water in Zambia. While the work is important, the authors detailed characterization of isolated species was not performed.

Major Comments:

1. The authors should first sequence the NTMs and find the differences between previous and the isolated NTM species in their study. They might need to check the differences in the total number of protein coding regions, differences in protein sequences as compared to the already reported isolates in that region or worldwide prevalent species, which is highly important to determine the novel species of NTMs. These sequence analysis should be presented in tabular forms or sequence alignment figure.

2. Authors may need to show the clinical details of patients from whom the samples were received. For example, symptoms, pathological conditions and environmental characteristics etc. These should be presented in tabular form.

3. The various NTMs isolated should also be presented in tree form to see the linkage between the isolated NTMs with existing forms of NTMs.

Minor Comments:

1. Several language mistakes are there throughout the manuscript that need to be corrected.

2. Study approval by the University ethical committees needs to be included in the methods section

3. The authors may need to submit the sequences of novel forms of NTMs to NCBI database for references and also if readers want to compare the sequence differences between the isolated and already existing NTMs.

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.

No

**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.

Not relevant to this manuscript

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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