Reviewer’s report

Title: Prevalence and molecular characterization of pyrazinamide resistance among multidrug-resistant Mycobacterium tuberculosis isolates from Southern China

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Reviewer: Ngu Abanda

Reviewer’s report:

The study by Pang and colleagues documents on the prevalence of mutations in the M. tuberculosis genes that confer resistant to Pyrazinamide. This study helps highlight some key mutations that could be used as targets for molecular diagnostic assays. I believe this study will be of great interest to the BMC Infectious disease readers.

However, some revisions are recommended.

1) There are quite a lot of grammatical errors. Here are some modifications I have proposed

Page 4, Line 68: MDR-TB constitutes a serous public health problem in China

Page 4, Line 72-73: As a prodrug, PZA requires conversion into its active form pyraninoci acid (POA) by the enzyme pyrazinamidase (PZase). PZase is encoded by the 561-nucleotide pncA gene

Page 4, Line 74-75. Loss of PZase activity cause by genetic mutations in the pncA gene is the main mechanism of M. tuberculosis resistance to PZA.

Page 4, Line 75: Recently several studies

Line 83: rpsA as a PZA-resistance mechanism

Line 85 Chongqing is the largest municipality in the southwest of China.

Line 86: … is considered a hotspot for both TB and MDR-TB in China

Line 99…. Information was obtained from patient's medical records.

2) The study authors need to clearly define, what samples were collected and how where the M. tuberculosis isolates obtained for drug susceptibility testing.

Line 97 all smear-positive tuberculosis patients…………………………line 99: The isolates were transferred……
What exactly was transferred the sputum sample or culture isolates recovered from sputum samples. Please precise exactly what was done.

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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