Reviewer's report

Title: Treatment of isoniazid-resistant pulmonary tuberculosis

Version: 1 Date: 12 June 2007

Reviewer: Dick Menzies

Reviewer's report:

General

Summary

This is a retrospective analysis of thirty nine patients with INH resistance who received one of three different regimens - three smear positive patients failed and acquired drug resistance; none of the thirteen smear negative patients failed.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Major Comments

1. This report suffers from two major problems: 1) it is retrospective and 2) it involves only 39 patients. However, treatment of INH resistant TB is still controversial as there have been relatively few randomized trials so additional information is potentially helpful.

2. They define INH resistance as organisms resistant at 0.2 mcg/ml but a more conventional definition, or at least the definition felt to be clinically important, is resistance at INH concentrations of 1.0 mcg/ml. Could they add this information to Table 1 (See below for further suggestion for table 1).

3. Two patients developed moderate hepato-toxicity – was this while they were on INH or on PZA, or did this develop while patients were taking only rifampin and ethambutol? This would be of interest because the hepato-toxicity of rifampin alone appears to be much lower than that due to the other TB drugs.

4. The detailed case reports of three individuals with acquired drug resistance are not needed. This could be dropped in an effort to shorten the paper substantially.

5. Compliance was defined as taking more than two-thirds of drugs each month. This is a rather lax definition of compliance and I wonder if they could provide more information on this point, particularly comparing the percentage of pills taken either each month or overall in the three who failed compared to the other smear positive patients who did not fail.

6. The discussion is far too long. This entire paper should be shortened substantially and presented as a brief report, in light of the fact that it is retrospective and only 39 patients.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

7. I suggest that Table 1 be modified and expanded slightly- please show two columns - the three who failed, compared to the 36 who did not. Please include details on the compliance as mentioned above and the INH resistance at 0.2 and at 1.0 if available in this Table.

8. Table 2 - please add information regarding those who are smear positive and smear negative, for each of the three treatment groups i.e. convert three treatment groups into six subgroups. Table 3 could be dropped.

9. I note that almost all patients converted their sputum by two months and very few converted later. Even some of those who failed, converted their sputum to culture negative by the end of two months. Thus it is surprising to see three failures and this suggests to me that the problem was one of compliance rather than
the drug regimens. Again, this can be examined more carefully by the authors, more information presented, and then this possibility should be discussed. This is particularly important in Korea where DOT is usually not practiced. In this series most patients, it appears were on self-administered treatment.

Discretionary Revisions (which the author can choose to ignore)

**What next?:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

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