Reviewer's report

Title: Clinico-epidemiological profile and diagnostic procedures of pediatric tuberculosis in a tertiary care hospital of western Nepal- A case-series analysis

Version: 1 Date: 29 December 2009

Reviewer: Robert R.P. Gie

Reviewer's report:

In this article the author report on the epidemiology, clinical picture and investigations of children referred to a TB treatment centre (DOTS centre) in a low income country.

This is potentially an important study as there is limited data in the literature as to the number of children diagnosed with TB, the investigations used to diagnose TB and the clinical forms of childhood TB especially in low income countries with limited diagnostic facilities.

Major revisions:

1. Of the 162 children diagnosed with TB we are not given the diagnostic criteria used to diagnose TB. This makes evaluation of the special investigations used difficult to assess.

2. In the discussion the authors note that medical records were not available for all the cases included in the study. This is of course not unusual in retrospective studies but those cases where the data was not available should be acknowledged in the data and the authors should indicate how they managed this problem.

3. From my analysis of the data even in older children sputum smear microscopy was not used to diagnose pulmonary TB or did all the children older than 10 years (n=20) have their sputum examined? If this is the case then only 5/20 were smear positive which gives us some idea as to the quality of the data. This needs clarification.

4. What is uncertain is how the diagnosis of abdominal TB, pleural, pericardial TB etc was made which would be valuable additional data.

5. The most common extrapulmonary TB diagnosed was lymphnode disease which is similar to other reports. The diagnosis was in the majority made by fine needle aspiration. The point of uncertainty is that it seems that there were 132 attempts at FNA of which 35 were diagnostic. In my interpretation that means on average each child had 4 attempts to make the diagnosis or is there another explanation?

6. In the discussion it is reported that 20% of children were tested for HIV. In the results were are not given any indication as to the number tested the number positive etc. This is an important omission.

7. The diagnosis of disseminated TB needs to be more specific. The authors
state that disseminated TB is when 2 organs are involved. Clarity is needed as to if the authors are referring to acute dissemination (miliary TB) of distant dissemination e.g. skeletal TB. Would the authors have considered cervical lymph node disease and pulmonary disease as dissemination or not? Would a red eye and pulmonary disease be regarded as dissemination? This needs clarification.

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests