Reviewer's report

Title: Effect of praziquantel treatment of Schistosoma mansoni during pregnancy on immune responses to schistosome antigens among the offspring: results of a randomised, placebo-controlled trial.

Version: 2 Date: 21 April 2011

Reviewer: Mark Booth

Reviewer's report:

This is an interesting paper in an important subject area that correctly uses a controlled-trial approach to examine the potential influence of praziquantel treatment on immune responses to schistosome antigens. The authors take as their starting point previously published studies demonstrating that in utero sensitisation to schistosome antigens can occur. They then test whether treatment of mothers infected with schistosomiasis affects the degree of responsiveness of cord blood and neonates.

As this is the first trial of its type, the paper cannot be expected to provide all the answers to the question of how praziquantel treatment may impact on the immune responsiveness of neonates. However, there are some aspects of the paper that could be improved by reference the immunological properties of cord blood, and the discussion of potential influence of anti-idiotypic responses is also absent.

Major Compulsory Revisions
None

Minor essential revisions
Table 1 indicates that there was no statistically significant correlation between rank correlation coefficients in any of the comparisons. The authors nonetheless to advance an (acknowledged) speculative reasoning for why certain cord-blood responses were correlated with maternal infection intensity in the placebo group but not the praziquantel group. It would be simpler to acknowledge that the data were unable to demonstrate any statistically significant difference between the two groups, given that the large number of tests conducted in the analysis was very likely to have produced some aberrant results.

The discussion could be improved by considering the bigger picture (e.g. the immunological properties of cord blood) and questioning the validity of the hypothesis

Discretionary revisions
none
Level of interest: An article of importance in its field

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