Reviewer’s report

Title: Clinical and Laboratory Findings Associated with Severe Scrub Typhus

Version: 1  Date: 18 November 2009

Reviewer: Ramakrishnan Ramachandran

Reviewer’s report:

Is the question posed by the authors well defined? - YES

2. Are the methods appropriate and well described? - Yes

3. Are the data sound? - Yes

4. Does the manuscript adhere to the relevant standards for reporting and data deposition? - Yes

5. Are the discussion and conclusions well balanced and adequately supported by the data? - Yes

6. Are limitations of the work clearly stated? - No

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? - Yes

8. Do the title and abstract accurately convey what has been found? - Yes

9. Is the writing acceptable? - Overall, the article is fit to be published after attending to the following comments.

Minor essential corrections:

1. Abstract is clear.
   a. Line 3 read as factors associated with severe condition....

2. Background
   a. The study objective is clear and justified
   b. Check spelling in line 3 – interstitial?

3. Methods
   a. Study design is appropriate
   b. There is no rationale for Sample size for cases and controls
   c. It is not clear whether all the study subjects – cases and controls are lab confirmed cases of scrub typhus in the first paragraph of methods. Definition of severe cases of scrub Typhus was given in Para 2 and laboratory confirmation was stated in the third paragraph. Re-alignment of paragraphs would render better readability.

4. Results
   a. Distribution severity symptoms of severe scrub typhus cases do not add up to 89 cases. Probably there were cases with multiple symptoms. Instead of writing a
paragraph, the authors can present them in a table and mention just the top conditions in the text.

b. In multivariate analysis, variables 1, 3 and 4 the factors considered as risk factor is mentioned and the complementary of it could be assumed as a reference class. For variable 2, namely, eschar, both presence and absence are mentioned and it is not clear which is compared with what. It is better to state the reference class of each category.

c. Tables 1 and 2 need improvement in the format and title. Many confidence intervals are very wide – Need to discuss.

5. Conclusions
a. ‘Patients without eschar’ instead of ‘presented with the absence of eschar’ (line 2).

Major compulsory revision
Discussion
a. There is no separate section. There are several repetitions of results. It should be more a discussion on the interpretation of the results. There must be a paragraph on internal and external validity (bias, confounders, how far the results are generalised etc.) and their implications on the study results

b. Limitations of the study