**Author’s response to reviews**

**Title:** Severe Fever with Thrombocytopenia Syndrome: Comparison with Scrub Typhus and Clinical Diagnostic Prediction

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Changjun Bao (Reviewer 1):

Sang-Won Park et al compared the clinical presentations of severe fever with thrombocytopenia syndrome (SFTS) with scrub typhus. Based on the comparison, they developed a clinical diagnostic prediction model. The patients of scrub typhus collected during 2009-2011, whereas the cases of SFTS collected from 2013 to 2015. Then, how was the comparability? And how to keep same of the test standard?

==> As there is no evidence that the clinical features of both diseases have changed, and we have used a same methodology, mixing of cohorts might not lead to the significant inhomogeneity. For the tests, PCR assay for scrub typhus was performed all at once for the stored samples. Paired serology using a same commercial product might not cause a problem of test standard. PCR assay for SFTS was performed in a single reference laboratory. For clarification we added this comment as one of limitations in the text (page-19; line 341-344)

As the authors mentioned in their manuscript, Escher was a very typical clinical presentation for scrub typhus. Hence, Eschar-positive patient was not necessary to be differentiated with SFTS. Suggest to compare SFTS with only eschar-negative scrub typhus.

==> In the actual clinical practice, eschar is not always easy to find. So, only eschar-negative data may cause a bias in the initial clinical approach. We already provided a subgroup analysis for the eschar-negative scrub typhus.

According to the authors ’description, the incidence of season and geographic distribution were two vital factors in distinguishing SFTS from scrub typhus. In addition, the history of insect bite and contact with similar cases before illness onset were also important. One reason was that the
two diseases had completely different vectors. The other reason was that SFTS virus can transmitted via contact blood or bloody secretion.

However, the finial scoring tool only included three laboratory parameters. That was not enough. 

Those factors mentioned above were significant in the univariate analysis, but in the multivariate analysis only three laboratory parameters were significantly predictive factors.

Masayuki Saijo (Reviewer 2):

The authors studied the differential diagnostics of SFTS from scrub typhus or of scrub typhus from SFTS based on the clinical parameters in South Korea, in which both diseases are endemic. The study has been done in a retrospective manner using the data collected from patients with SFTS and those with scrub typhus. It is evident that this kind of study should be performed in a prospective manner. However, the study design, in which relatively large number of patients with SFTS and of those of scrub typhus were included, is well considered and the manuscript is well written. The scoring system to predict the differential diagnosis of SFTS and scrub typhus might be beneficial in the clinical setting in the areas, where both diseases are endemic.

Major comments:

The form of reference should be unified according the authors instruction for BMC Infectious Diseases.

Revised according to the instruction.

Specific comments

1. Page 5, Line 63: The sentence "Severe fever with thrombocytopenia syndrome (SFTS) is emerging in scrub typhus endemic areas" is a misleading description. SFTS is not emerging in such areas.

Revised as ‘(SFTS) is emerging in Asian 3 countries, China, Japan and Korea, which are scrub typhus endemic areas, ~’.

2. Page 5, Line 70: "A SFTS" should be "An SFTS".
3. Page 7, Line 95-96: The sentence "These 3 countries are also endemic for scrub typhus caused by Orientia tsutsugamushi" should be corrected to "Orientia tsutsugamushi is endemic to these 3 countries".

4. Page 7, Line 102: "they are transmitted to humans through ticks and mites bites mostly during outdoor activities" should be corrected to "SFTS and O. tsutsugamushi are transmitted to humans through ticks and mites bites mostly, respectively, during outdoor activities".

5. Page 7, Line 105: "important" might be "difficult".

6. Page 10, Line 154: "A SFTS" should be "An SFTS".

7. Page 10, Line 154: "positive" should be "-positive".

8. Page 10, Line 159: This reviewer prefers to use the term "consciousness" instead of using "mentality".

9. Page 15, Line 244: "easily" should be deleted.