Reviewer’s report

Title: Detection of SFTS Virus RNA and Antibodies in Severe Fever with Thrombocytopenia Syndrome Surveillance Cases in Endemic Areas of China

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Reviewer: Fei Deng

Reviewer's report:

1. The result in the Abstract mentioned "Group A" and "Group B" for the first time, which makes me confused. A brief description is necessary in Abstract to clarify how the two groups were divided.

2. line 27  A reference is needed.

3. line 31 delete "for many times".

4. In line 40, the description "The detection rate of RNA and antibody was different." is too simple to explain the dissimilarity between qRT-PCR and ELISA.

5. line 65  please provide the primer and probe sequences.

6. line 74  is the cut-off value too low?

7. line 84  Is there a approval number issued by the ethics committee?

8. line 93  had fever.

9. Table 1 listed the general information of participants, however, it is not clear enough for me to get full understand of the enrolled population. For example, most of them were farmers accounting for 81.3%, but information for the occupation of rest persons was not mentioned. The title of the last volume does not suit for all parameters, such as "sample collection days after onset", "leukocyte count" and "platelet count", which would make the values to be misunderstood or difficult to be understood. Dividing this table into two parts is suggested including personal information and clinical parameters, both with the corresponding headers.

10. Both RNA and IgM could be detected on the day of disease onset. But the detailed sampling days for all samples were not described.

11. It is better using a table to show the RNA, IgM and IgG detection results of three groups. The temporal change of viral RNA, IgM and IgG could be illustrated by using a bar chart or something like that for better presentation of these results.
12. The "Comparison of SFTSV RNA and IgM antibody detection" part needs to be deeply improved. There were 3 groups as divided, but why the comparison analyses were performed using ≤14d and ≥15d groups. At least a sentence should describe the reason or background. Table 2 also confused me. How many samples were collected ≤14d in total? How many were IgM positive and negative in the 14d? 41 positive and 95 negative? Those do not fit the total number. And dose the table mean there are 41 IgM positive samples including 15 RNA positive and 26 negative? If so, why not use the viral RNA positive and negative as subtotal to analyse the percent of IgM results. The results and significance of McMemar test and Kappar values in this table were not explained. Anyway, please rebuild the table to better illustrate the comparison results and significance.

13. Has the specificity of the IgM and IgG ELISA kit been evaluated before? Please provide the reference and explain how it was done.

14. The authors mentioned that the detection rate of IgM antibody was higher in the second week. So a figure or/and table showing the detection rates changing along with sampling days after illness onset is strongly recommended.

15. line 168  SFTSV RNA detection.

16. According to the results in this study, what is the potential reason of the inconsistency of the viral RNA and IgM detection results? Why there were IgM negative but RNA positive cases? Were the sera from the 9 cases collected very early after illness onset?

17. There were both IgM negative and viral RNA negative cases (86 cases in table 2). So they are not confirmed SFTS cases just with SFTS-like symptoms. Other infection which could induce symptoms similar to SFTS could be suspected. I don't think these cases can be included in this study.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

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