Reviewer's report

**Title:** Emergence of A New Crimean-Congo Hemorrhagic Fever Virus Strain in Turkey

**Version:** 2  **Date:** 22 July 2008

**Reviewer:** Masayuki Saijo

**Reviewer's report:**

Review for the paper entitled #Emergence of a new Crimean-Congo hemorrhagic fever virus strain in Turkey#

Major compulsory revisions: The paper entitled as #Emergence of a new Crimean-Congo hemorrhagic fever virus strain in Turkey# describes that Crimean-Congo hemorrhagic fever (CCHF) virus (CCHFV) that was genetically and closely associated with CCHFV AP92 strain that had been isolated in Greece caused CCHF in a patient in Istanbul, Turkey. The PDF version of this paper might be mistranslated from the original form, resulting in difficulty in reading. I cannot understand how does this happen? It is evident that CCHFV genome (KMAG-Hu-07-01) amplified from the index case was phylogenetically associated with AP92 strain. This evidence is interesting. The authors conducted the serological survey among the residents living in the region from where the index case was reported. They demonstrated that approximately 5% of the 741 subjects showed positive reaction in both the IgG and IgM antibody tests. All the sera collected from the 741 subjects with IgM-positive reaction showed a IgG-positive reaction, indicating that all the CCHFV-IgG-antibody positive subjects were infected with this virus very recently and that the residents had never been infected with CCHF before. It is highly possible that CCHFV-IgG antibody induced the cross positive reaction in the IgM antibody test. To exclude this assumption, IgM-capture ELISA assay should be carried out. CCHFV genome was not amplified from ticks collected in the region. Therefore, there is no evidence that the IgG and IgM-antibody positive subjects were infected with CCHFV KMAG. The conclusion that CCHFV KMAG is less virulent than other CCHFV isolates in Turkey is open question. Further study is needed. The methods for CCHFV IgG and IgM antibody detection should be mentioned. At least, the sensitivity and specificity of the commercial kit used in this study should be described.

Minor comments

1. Title: The term #emergence# in the title is misleading.
2. Page 2: The first sentence in the Background section: CCHF is a fatal viral infection reported in Turkey five years ago# is wrong. CCHF has already been reported before the identification of CCHF in Turkey. Define the year when CCHF was first identified.
3. Page 3, the last sentence in the Background section: Cite the paper for this
sentence.

4. Page 3, Methods section: How was the index case diagnosed as having mild CCHF?

5. Page 6, Discussion section: Is the rate 17.43 % (200/218 nt) correct?

6. Page 7, Discussion section: As mentioned in the general comments section, the IgG and IgM positives could not be confirmed as having infection with CCHFV KMAG. Therefore, this reviewer considers that the attack rate cannot be calculated.

7. Statistical analysis: There are not enough data to assess the acceptability for statistical analyses.

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests.