Reviewer's report

Title: Parvovirus B19 infection and severe anaemia in Kenyan children: a retrospective case control study

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Reviewer: Claudio Lunardi

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The paper by Widig J et al. on Parvovirus B19 infection as a cause of severe anemia in Kenyan children is very interesting and adds new information on the prevalence of the viral infection in this area of Africa.

The message is very clearly stated and the work comes from a group with an impressive experience in the field.

There are some points I would like to raise (Discretionary revisions):

1) Methods: I do not understand why the presence of B19 IgG is measured in 536 patients (271 cases and 265 controls) instead of the 264 cases with severe anemia and the matched controls used for the presence of B19 IgM: I find this difference a bit confusing;

2) Results: the prevalence of B19 IgG does not seem to increase with age, as reported, looking at the data shown in Table I (i.e.: 21.3% in subjects aged 0-6 months and 23.8 in subjects aged 55-60 months). The highest prevalence is in the population with a very low number of subjects, to draw any conclusion.

3) Finally Table I is a little confusing since it shows not only the paired samples but also the unpaired ones as reported by the authors in the footnote of the table itself. I would mentioned in the text or in the table legend how many children were analysed in total (607 for IgM and 535 for IgG if I am right) and whether the same or different sera were tested for both IgG and IgM. Moreover the prevalence of 14.2% for IgG testing reported in the discussion seems different if we consider all the children analysed (>19%).

Minor point:
Abstract: KDH is mentioned for the first time in the conclusions and is not reported after the first time the Hospital is mentioned in the Background.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:

I declare that I have no competing interests