Reviewer's report

Title: Seroprevalence of Cytomegalovirus among pregnant women and hospitalized children in Palestine

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Reviewer: Maria Grazia Capretti

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The paper by Neirukh et al. investigate the seroprevalence of HCMV infection in an heterogeneous population of 1480 patients in Palestine.

Data about the seroprevalence of HCMV infection among pregnant women are interesting, However the paper suffers of major weak points.

Major Compulsory Revisions:

1. The study population includes newborns, children and pregnant women; as the impact of HCMV infection is different in these categories, it is advisable to better focus the paper. The Authors state that the aim of the study is to “shed light on the incidence of HCMV infection in Palestine pregnant women and children including newborns” (page 4 lines 89-90). However, when referring to newborns, it is necessary to clearly define if it is aim of the Authors to provide data about the incidence of congenital disease, or if they are talking about post-natal infection. This is a key point when evaluating newborns. The method used to investigate newborns and younger infants (IgG and IgM assay) seems to be inappropriate. CMV serology is not useful when studying newborns: they often did not produce IgM, and neonatal IgG reflect the placental transfer of maternal antibodies (as Authors themselves state in the Discussion section – pag. 9 line 250). In the Discussion section Authors state “During the study period, four (1.6%) HCMV congenital infection out of 249 tested newborns were symptomatic and treated with Gancyclovir” (page 9 lines 288-290): were all 249 infants considered to have HCMV congenital infection based on positive anti-HCMV IgG? If the aim of the study is to evaluate the incidence of HCMV congenital infection Authors should provide the diagnostic criteria of both symptomatic and asymptomatic HCMV congenital infection.

Authors should clarify these points, or analysis and considerations about newborns should be removed.

2. It is unclear how the study population was selected: was TORCH test ordered in children and independently from the age and from the maternal serological status? (page 4 line 101, 104). Which were considered to be clinical signs of infection?

3. In the HCMV Avidity section (page 7 line 185): how Authors determined IgG avidity in a IgG negative woman?
4. Clinical observations section (page 8 line 207-219): the clinical findings in infants aged 23 days-14 years with positive anti-CMV IgM seem to be suggestive of congenital HCMV infection, especially as regards the visual and hearing impairment. However, given the age range and the positive IgM, it is unclear what Authors mean. The mild bilateral conductive hearing loss (page 8 line 216) is probably unrelated to HCMV.

Minor Essential Revisions:
1. Page 9 line 248: remove "among"

2. If data on prenatal findings in pregnant women undergoing a HCMV infection are available, they should be added.

Level of interest: An article of limited interest

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