Reviewer’s report

Title: Risk factors for hepatitis E virus seropositivity in Dutch blood donors.

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Reviewer: P. GALLIAN

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In their paper entitled "Risk factors for Hepatitis E virus seropositivity in Dutch blood donors", Sofie et al present an anti-HEV IgG seroprevalence study in 2100 samples from plasma donations collected between March and May 2016 from all over Netherland, the anti-HEV IgG prevalence was 31% in Dutch blood donors. A total of 1562 donors accepted to fill a self-administered questionnaire in order to identify characteristics and risk factors associated to past exposure of HEV-3 infection. Higher anti-HEV IgG prevalence was statically associated with consumption of pork and beef meat including traditional raw sausages, bovine steak, smoked beef. Interestingly, and for the first time to our knowledge, the authors underlined the potential role of the food production methods for HEV contamination when using non heat-inactivated pig-derived blood products or a low proportion of pork meat in the food composition. In future studies, this hypothesis has to be taken into account in order to clarify dietary routes of HEV infection in humans. Among risk factors statistically associated with HEV past infection, the higher adjusted Odds Ratio (2.5) was observed for people having contact with contaminated water (IgG positivity =46%).

The reviewer has some concern about the study as follow:

Minor issues: 1) Because the HEV could be transmitted by the faecal-oral route, contaminated surface waters could potentially spread infection to estuaries as suggested by higher IgG anti-HEV rate in French blood donors reporting consumption of oysters (Mansuy et al, Hepatology 2016 : "A nationwide survey of Hepatitis E viral infection in French blood donors"). Please comment why seafood (fish, mussels…) have not been investigated as potential risk factor for HEV past infection in this study? 2) In the Abstract section, the assertion that "risk factors for infection with HEV are currently unknown" has to be modulated. As commented in the background section, it is the "exact sources and routes of transmission" who are unknown. Some risk factors have been identified but their exact implication remain to be clarified. 3) Table 1 (Percentage columns of anti-HEV IgG negative and anti-HEV IgG positive) has to be revised. Authors has to clarify for items if:*percentage correspond to the proportion of items of a demographic characteristic (ex: men or women for gender) in the subpopulation of IgG negative or positive individuals (ex : 81.4% of the IgG positive subpopulation were men). In this case, it seems not pertinent because mainly reflecting the sex ratio of the studied population. *Or if percentage correspond to the proportion of one item (ex: men) in both subpopulations of IgG negative donors (ex: IgG-negative men =837/1234: 67.8%) and IgG positive donors (ex IgG-positive men = 397/1234: 32.2%).

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.

Unable to assess

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.

I recommend additional statistical review

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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