Reviewer’s report

Title: Comparison of hepatitis E virus prevalenceseroprevalence between HBsAg-positive population and healthy controls in Shandong province, China

Version: 0 Date: 28 Aug 2017

Reviewer: Helene Norder

Reviewer's report:

This study is a large community based study on HBV infected and anti-HEV IgG and IgM in the population of Rushan and Zangqui in the Shandong province in north eastern part of China. Sera from more than 50,000 residents in these two provinces were analysed for HBsAg, and those with HBsAg and matched controls, in all more than 4,000 individuals were further analysed for antibodies against hepatitis E virus (HEV). In these regions HEV genotype 4 is prevalent. The authors knew that HEV infections were more common in the Rushan county than in the Zhangqiu county. This was confirmed in this study, which also showed that one third of the population in Rushan had anti-HEV IgG at the age of 30, while this high prevalence was only observed in persons aged over 70 in Zhangqiu. The authors could not find any relation between HBsAg positivity and HEV infection.

General remarks:

The English needs revision, especially the tempus of the verbs.

The title should be changed and mirror the results obtained.

HEV RNA analysis should be performed on the anti-HEV IgM positive sera to identify ongoing infections. Most anti-HEV IgM assays, including Wantai, have a rather high unspecific anti-HEV IgM reactivity, this is not discussed in the manuscript.

The diagnosis of the hepatitis B disease is poorly described. The criteria for chronic hepatitis, carrier, cirrhosis and HCC should be given.

It should also be given the number of HBeAg, anti-HBe and HBV DNA positive cases and relate this to anti-HEV. These analyses have been performed but are not given.

It is not mentioned if the participants had experienced acute hepatitis in relation to their anti-HEV status. All had been asked this question and this may be discussed or included in the manuscript to identify if HBsAg patients with anti-HEV more often had had clinical hepatitis related to HEV compared to the HBsAg negative controls. It is assumed that HEV aggravates the liver disease in chronic HBV and HCV infected.
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?
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I am able to assess the statistics

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

Needs some language corrections before being published

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