Reviewer's report

Title: High prevalence of HCV infection and associated risk factors in a Chinese population: a cross-sectional study

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Reviewer: Maud Lemoine

Reviewer's report:

This study aimed to identify risk factors of HCV transmission in Fuyu, a Chinese city which is known to be highly endemic for HCV infection according to the authors. The main original finding is the use of parenteral caffeinum natrio benzoicum, as a risk factor of HCV infection in the local population. The authors also identified usual nosocomial risk factors.

Thus the originality of this paper relies on the use of this drug, which is not very well known and as far as I know, poorly described so far.

This paper is interesting but deserves comments and corrections that should improve its quality.

1) The title should be changed and more reflects the main finding of the authors. For example: “use of parenteral caffeinum natrio benzoicum: a underestimated risk factor of HCV transmission in China”.

2) The authors should provide more information about this drug, caffeinum natrio benzoicum and its use worldwide

2) Methods

1- the authors should clarify whether this study was a population-based study. How were participants selected. This is unclear. And what were the inclusion and exclusion criterias.

2- the authors should give figures:

“Five survey locations (rural counties) were shown to have a higher prevalence of Hepatitis B during the epidemiological investigation of Hepatitis C virus infection” in Fuyu City of Jilin Province in the First Hospital of Jilin University.

Higher ? compared to what ?

Please clarify

3- The authors should describe the method for HCV genotyping.

4- In the ethical considerations, the authors should add more information and should state somewhere that data were anonymously recorded and how they were recorded.

5- Results:
In the results: 3228 participated to the study but 9 were not included, the authors should provide reasons why these participants were excluded.

A table should describe the clinical and biological/virological characteristics of the HCV positive participants.

5- Why the authors did not assess HIV serology or do they have the results. It would be very informative to get the results.

6- The authors should give the median viral load in the results.

7- How do the authors explain that HBV infection, ear piercing and tattoo protect against HCV infection?
This statement deserves a reference, in particular since HBV transmission is mainly observed from mother-to-child transmission in China.

8- In the discussion, the authors should discuss whether the of parenteral caffeinum natrio benzoicum was previously reported in China and in other countries. If it is still used.

9- Conclusion
“Fuyu has a higher HCV prevalence and we observed: compared to ??”

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: none