

# Review of: "Sero-prevalence of Viral Hepatitis B and C infection and associated factors among Pregnant Women in Southeast Ethiopia: Community-based crossectional study"

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Potential competing interests: No potential competing interests to declare.

Sero-prevalence of viral hepatitis B and C infection and associated factors among pregnant women I Southeast Ethiopia: Community-based crossectional study

Mohammed et al 2023

The article by Mohammed and collaborators describes a cohort of 410 pregnant women in Southeast Ethiopia who were tested for the presence of hepatitis B antigens and anti-hepatitis C antibodies and were submitted to a questionnaire to detect risk factors related to the two viral infections. The article reports that presence of hepatitis B antigens are correlated with a history of dental extraction, hospital admission, household contact, tattooing and sexually transmitted infection. While the presence of anti-hepatitis antibodies are correlated with blood transfusion and household contact.

The article has references to a number of studies in the same part of the world and a quick search on PubMed indicates over 200 articles on one or two of the viruses in Ethiopia. However, the data described is of interest since both infections are important health issues in this part of the World and collection of recent data is always critical to follow or to induce public health actions.

## **Introduction:**

There are a number of references in the introduction. Many are of documents coming from WHO. I believe that references to some scientific articles would be good. There are some good reviews that could be cited.

Authors looked at presence of antigens for HBV and antibodies for anti-HCV. However, this is not a demonstration of chronic carriage. There is very little about the difference between the two and how they are reconciled in the article. In the introduction, it is never said for the data cited if it is chronic carriage or presence of antigens/antibodies.

It would be of interest to know what are the most prevalent liver diseases in Ethiopia (supported by scientific articles).

## **Methods and Materials**

I am not sure what are the lists and definitions for in this that of the article. This is not a classical way of writing a material and method. I would remove them.

Is the questionnaire for the study available?

In the abstract it is indicated that 3ml of venous blood was collected and in the “materials and methods ” 5 ml. How many times did you repeat the tests? How much serum was used? How were the samples stored before and after the tests?

For the two kits that were used, who is the manufacturer? Here again, some sentences are not clear to me :

- “Excellent quality According to the instructions...” . What do you mean?
- ...

The study was approved by a directorate. Is this an ethical committee in Ethiopia? Do you have an authorization number?

Is the consent form template available?

### **Results:**

I believe some of the risk factors studied should be more precisely defined:

- The ethnic group described are they representative of this part of the world?
- What is the definition of Poorest/Poor/Medium/Rich/Richest
- What does “household contact”mean?

### **Discussion:**

Do the authors mean that the presence of antibodies / antigens is similar to a diagnosis of chronic carriage? Again this notion should be clearly developed in the introduction and discussion.

In light of this remark, I believe that the transmission routs of those two viruses should be described in the introduction and discussed in the discussion of the results. They are important to look at risk factors.

Data for the risk factor “dental extraction” is compared with data coming from Saudi Arabia. Is this comparison appropriate? Are dental practices and hygiene similar in the two countries?

The statement “This is because a history of sexually transmitted infection is closely related to involvement in heterosexual practice...” surprises me.

### **Minor points:**

- Authors should specify their country of origin
- I found some sentences difficult to read (for example first sentence of 2<sup>nd</sup> paragraph of the introduction or last sentence of the third paragraph, last sentence of the 6<sup>th</sup> paragraph...)
- The sentence above table 3 (“Accordingly, pregnant ...”) is difficult to read and should be modified.
- You should define STI

