Reviewer’s report

Title: Prevalence, correlates and pattern of Hepatitis B among antenatal clinic attenders in Yaounde-Cameroon.

Version: 4 Date: 24 February 2013

Reviewer: Franziska Becker

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In the present study a great number of 959 pregnant women attending antenatal care in Yaoundé, Cameroon were tested for HBV and HIV infection and data on HBV vaccination status was collected. Prevalence of HBV and HIV infection was 7.7% and 8.4%, respectively. HBV/HIV co-infection rate was 0.74%. HBV vaccination rates were low, indicating low awareness for HBV among pregnant women in Cameroon.

Furthermore, high rates of HBeAg - indicating that a great proportion of pregnant women are highly infectious - were found. This is an important contribution in the field of HBV infection among pregnant women in a country with high prevalence of HBV in general, where particularly children under 5 years of age are vulnerable of becoming chronically infected.

I have a few comments:

Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

1. Introduction: Your statement that the data from Kfutwah et al. “definitely do not reflect the state of the epidemic in Cameroon today” would be better assessed as a hypothesis since you reject it later on in the paper.

2. Methods: As you used EDTA-blood for your testing, stick to “plasma” instead of “sera”.

3. Title: I would recommend highlighting your novel findings in the title: Such as “Is perinatal transmission of HBV neglected in Cameroon?”

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. Introduction: The paper relates to HBV infections in Cameroon but a closer look on (unfortunately scarce) studies conducted in the field of HBV endemicity in that area would be advisable.

2. Methods: The difference between 959 participating women and 952 women tested for HIV needs further explanation.

3. Introduction/Discussion: Focus more on perinatal transmission by highlighting the elevated rate of chronic infection due to early childhood transmission.
4. Methods: Describe the risk factors you were looking at in the questionnaire in detail.

5. Results: In the first part of the “Results” you already discuss some of your results, which should be done later.

6. Discussion: When you compare your HBsAg prevalence with data obtained in other African countries clarify the study group which you are citing, e.g. pregnant women.

7. Results/Discussion: Check that you always define the observed marker when you talk about prevalence.

8. The HBV/HIV co-infection Rate of 9.5% in the Abstract differs from 0.74% described in the Results.

9. Discussion: Since the Expanded Programme on Immunization (EPI) had been implemented only for seven years at the time of data collection your study population may not have benefitted from that programme yet. Therefore, your conclusion that “preventive efforts against horizontal HBV transmission have had little impact within our community over the last 10 years” should be revised.

Major Compulsory Revisions (which the author must respond to before any decision on publication can be taken)

1. Methods: Clarify the methods of generating the control group, defining cases and controls.

2. Methods: Anti-HBc cannot determine the chronicity of HBV-Infection - as you wrote - but reflects the lifetime exposure to HBV. Also correct the term “All” (n=959) as you tested anti-HBc only in 644 patients. Compare your finding that 40.8% of 644 pregnant women were tested positive for anti-HBc to more than one study – as you very well did for HBsAg. Representing less than half of the study population the term “most” used in the conclusion is misleading and should be considered.

3. Methods: As the rate of HBeAg was high but was only measured in one third of the HBsAg positive women and anti-HBe was only measured in two thirds of HBsAg-positive women, your data lack some evidence. Is plasma still available for additional HBeAg- or anti-HBe-Testing – or even HBV-DNA- Testing?

4. Discussion: Your finding that only 2.7% of the pregnant women were vaccinated against HBV shows a massive lack of awareness concerning HBV infection among the general population. This being one of your most important findings should be developed more strongly.

5. Discussion: Your study provides very useful data to strengthen the efforts of routine antenatal screening for HBV among pregnant women in order to apply active/passive immunization to neonates born to an infected mother.
Should it not be the aim, as recommended by the WHO, to vaccinate every child during the first year of age independent of the mothers HBV-Status, taking into consideration that Cameroon is highly endemic for HBV? Therefore, antenatal counseling on HBV could help to raise the awareness among future mothers and might be linked to higher follow up rates in HBV immunization.

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Needs some language corrections before being published

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.