Reviewer's report

Title: Impact of viral replication inhibition by Entecavir on peripheral T lymphocyte subpopulations in chronic hepatitis B patients

Version: 1 Date: 19 February 2008

Reviewer: Karine Lacombe

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General considerations:

The main issue of this paper (influence of entecavir on peripheral T lymphocyte subpopulations and correlations with HBV replication) has not been addressed before and is therefore of interest.

There is a major problem with this paper: 55 patients have been included between January 2006 and August 2007, and the duration of follow-up was 48 weeks. The authors stated that no patient dropped out. How were the authors able to get data ready for publication in February 2008, only 24 weeks after the end of the inclusion period? Is there a mistake in the notification of the inclusion period? The paper should besides be English edited as there are some grammar errors and misspelling throughout the whole text.

Major comments:

Abstract: a sentence on the statistical methods used for evaluating dynamic fluctuations and correlations should be added in the \textit{methods} section. The \textit{results} section should start with a brief description of the included patients. The main results should be reported with numbers and the sentence has to be rewritten, as its meaning is unclear (there is a lack of a verb). The \textit{conclusion} section should also be rewritten: does the term \textit{this antiviral treatment} refers to Entecavir? It is probably the case, but it should be clearly mentioned this way.

Background: no study has to date compared the efficacy of adefovir and entecavir. It is therefore not true to say that entecavir is superior to adefovir. The sentence should be rewritten and the references should be shortened (19-32) as many of them are redundant.

Methods: The exhaustive list of inclusion criteria must be detailed (the notion of clinical diagnosis following international criteria is too vague). The inclusion period must be corrected if August 2007 is a wrong date.

Results: Patients were all biopsied. It might of interest to report the results of fibrosis and activity in the description section, as well as the number of patients presenting with cirrhosis and previous hepatic decompensation, in order to have a better clinical picture of the patients included. The results of the multilevel
regression must be more clearly stated and interpreted. What is the main finding of the study? Is it that there is an increase of CD4 T cells while HBD-DNA is decreasing due to the antiviral effect of Entecavir? If yes, the last paragraph should report it more clearly. Why are the CD4 and CD8 cells not expressed in absolute values?

Discussion: See remarks about entecavir superiority in the introduction section. In the last paragraph before the â##conclusionâ## section, the authors write that intervention strategies should be taken into account to prevent progression and long term consequence. What does that mean in light of their results?

Minor comments:
Careful re-reading is necessary to correct all the misspelling and grammar. References should be more carefully chosen as many are reporting results of papers already cited earlier in the text. I would not say that the guidelines of ref #33 are â##international guidelines for HBV treatmentâ## as they are essentially established for Chinese clinicians.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests