Reviewer's report

Title: Immune responses in patients with HIV infection after vaccination with recombinant Hepatitis B virus vaccine.

Version: 1 Date: 14 July 2005

Reviewer: Vincent Soriano

Reviewer's report:

General

This manuscript describes the efficacy of HBV vaccination in 40 HIV-pos patients and 20 HIV-neg controls living in India to whom three consecutive doses of 40 and 20 mg of vaccine, respectively, were administered. Despite a double dose in HIV+ patients, HBsAb levels were lower than controls. Cellular immune response parameters, such as NK activity, IFN-γ, IL-4 and IL-10 showed an increase also more pronounced in controls than in HIV+ patients. There was no HBsAb response in HIV+ patients with CD4 counts < 50 cells/ml. The authors conclude that early HBV immunization is warranted in HIV+ subjects.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Comments:

1. Abstract and throughout the text. It is easier to read and understand HIV-pos and HIV-neg with or without immunosuppression rather than call them group I and II and further subdivide the former in Ia and Ib according to the CD4 count (> or < 200 cell/ml).

2. Introduction. Replace the section headed Background.

3. Introduction. 1st paragraph. The authors misinterpret the prevalence of HBV-HIV co-infection (which should be restricted to HBsAg+) to HBV markers, which is the relevant for vaccination. Therefore replace co-infection by the words HBV markers.

4. Introduction. The rationale for examining cellular immune responses and correlate them with HBsAb responses needs to be better explained. Otherwise it looks quite strange why the authors make such an effort to assess cellular responses in a small series of HIV-pos and HIV-neg controls undergoing HBV vaccination.

5. Methods. The illustration at the end of this section needs to be separated and presented as a Figure.

6. Results. Section headed CD4+ response. It is quite surprising that there was an increase in the CD4 count in all subjects, even those with HIV infection, since immune activation driven by vaccination is often thought to transiently enhance HIV replication and therefore cause more destruction of CD4+ T cells.

7. Figures and Tables. There are too many (13 figures and 3 tables) and the information should be merged in just 3-4 or simply removed since it is unnecessary.
8. References. Some needs to be corrected and/or completed (i.e., volume in no. 9, etc). Many are too old (from the nineties) and pivotal papers are ignored such as consensus guidelines for managing HIV-HBV coinfected patients (AIDS 2005; 19: 221-240 and J Hepatol 2005; 42: 615-624).

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

English grammar should be revised.

Discretionary Revisions (which the author can choose to ignore)

none

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

Level of interest: An article of limited interest

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

Statistical review: No

Declaration of competing interests:

'I declare that I have no competing interests'