Reviewer’s report

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

Version: 1 Date: 12 March 2008

Reviewer: TARIK ASSELAH

Reviewer’s report:

The aim of this study was to analyze the dynamics of the peripheral T lymphocyte subpopulations profile and viral load in HBeAg positive CHB patients during the first year antiviral therapy with Entecavir. The authors studied fifty-five patients who received Entecavir 0.5mg/d therapy. HBV viral load dropped sharply during the first two weeks. In 28 and 43 patients the level became undetectable from week 24 and 48 respectively. Using pre-therapy level as the reference, a significant decrease in CD8+ T cells and increase in CD4+ T cells were found from week 12. Both parameters and CD4+/CD8+ ratio steadily improved throughout the 48 weeks. Multivariate analyses showed that no relationship during the initial period (2 week), the level of decrement of HBV DNA was associated with the increment of T lymphocyte activities in the later period (4-48 week). The authors concluded that T-cell failure could be restored partially by inhibition of virus replication through this antiviral treatment.

The strength of this study is the profound effects on cellular distribution and viral replication were found during Entecavir-therapy. The inhibition of virus replication induced by treatment with Entecavir results in a partial restoration and improvement of the impaired cellular immune response.

Comments:

(1) The authors stated, in the method section, that liver biopsies were taken within 12 months before enrollment showing chronic hepatitis. The authors should give the results of liver biopsies i.e. grade of necroinflammation and stage of fibrosis.

(2) The authors should comment in the discussion the rapid virological decrease during entecavir treatment (in comparison of other treatment).

(3) The authors should make comparison between patients with a good response to entecavir, from those with no response to entecavir. They should make a multivariate analysis to find factors associated with a favourable response.

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable
Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

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