Reviewer’s report

Title: Interpreting Cerebrospinal Fluid Pleocytosis in HIV in the Era of Potent Antiretroviral Therapy

Version: Date: 19 March 2007

Reviewer: Hans-Jürgen Stellbrink

Reviewer’s report:

1. The manuscript addresses the frequent and clinically relevant problem of CSF pleocytosis in HIV-infected subjects. It is often unclear if pleocytosis is attributable to HIV infection itself or to other infections such as neurosyphilis.

2. The research question is relevant and clearly stated, and the methodology is appropriate. Methods are described adequately and detailed enough to replicate the study.

3. The patient numbers are limited, especially the number of subjects with higher than normal CSF WBC counts (n=15, table 1). With regard to the size of the data set, however, the limitation of sample sizes due to the logistic requirements of the study and the required level of cooperation of the study subjects has to be taken into account.

4. The manuscript adheres to the relevant standards for reporting and data deposition.

5. The discussion is balanced. The validity of the conclusions, however, is reduced by the fact that no data on other possibly contributing factors such as syphilis serology are provided. An inflammatory CSF response to e.g. syphilis or tuberculosis could be associated with a higher plasma viral load, as well as with higher CD4 cell counts, possibly reflecting the ability of the host to mount such a response. Although the correlation of CSF pleocytosis with plasma viral load, CD4 cell counts and the untreated state is striking, the authors should provide information about the diagnostic attempts made to exclude coinfections. If unable to provide these data, they should address this issue in the discussion.

6. The title and the abstract convey the results of the study accurately.

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 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.