Reviewer’s report

Title: Lyme neuroborreliosis in HIV-1 positive patients successfully treated with oral doxycycline: case series and literature review

Version: 1 Date: 25 May 2011

Reviewer: Pia Forsberg

Which of the following best describes what type of case report this is?: An unexpected association between diseases or symptoms

Has the case been reported coherently?: Yes

Is the case report authentic?: Yes

Is the case report ethical?: Yes

Is there any missing information that you think must be added before publication?: Yes

Is this case worth reporting?: Yes

Is the case report persuasive?: Yes

Does the case report have explanatory value?: Yes

Does the case report have diagnostic value?: Yes

Will the case report make a difference to clinical practice?: Yes

Is the anonymity of the patient protected?: Yes

Comments to authors:

This article describes four patients with co infection of HIV-1 and the spirochete Borrelia Burgdorferi. The patients had neurological symptoms. It is worth to be published, because it is rather unusual in Sweden. As the authors conclude, it is important for doctors treating HIV patients to consider Borrelia infection if a patient present with atypical neurological symptoms.

- Revisions necessary for publication:
1. All abbreviations must be checked for, i.e. LNB, CSF SIADH, SSRI, ART. They should be explained the first time used in the text.

2. In Method and Material, the last sentence, should be followed by a reference to the Swedish Medical Products Agency.
3. In Case reports, Patient 1, line 8: "The hyponatremia was thought......" What does this statement mean and where can I see that the patient had hyponatremia? This is unclear.

4. In Case reports, Patient 1, line 18: "The CD4 cell count had increased to 440 cells/........." Where is this statement illustrated? Unclear.

5. In Case reports, Patient 1, the last line: "At follow-up six months later...." This is NOT stated in Material and Methods (4-8 weeks). Unclear.

6. In Case reports, Patient 2, the last line: "At follow-up six months later...." The same comment as no 5. What about mononuclear cells in CSF at that time?

7. In Case reports, Patient 3, at line 14: "All the symptoms (including dysgeusia) improved within days......" Comment: how many days?? What is dysgeusia??

8. Regarding the case reports - were the most common opportunistic CNS-infections excluded? Please comment on that and clarify further...(see also Discussion, second paragraph, last line).

9. In Discussion, second paragraph, line 8: "Patient 4 seroconverted from negative to positive......" Q: were the two samples analysed together at the same time (in parallel)? Please state this if so.

10. In Discussion, fourth paragraph, line 6: "The atypical clinical picture might also have been caused by the long disease duration before......" Where is this statement illustrated? Unclear.

11. In fig 1: which patient does each line represent???

12. In Table 1: normal values, sex, abbreviation-explanation - should be included.

Quality of written English: Acceptable

Declaration of competing interests:

'I declare that I have no competing interests'