Reviewer's report

**Title:** Spinal cord hemorrhage in a patient with neurosarcoidosis on long-term corticosteroid therapy. Case report.

**Version:** 3  **Date:** 29 March 2015

**Reviewer:** Susanne Wegener

Reviewer's report:

This short case report about spinal cord hemorrhage in a patient with neurosarcoidosis is interesting, because hemorrhage is not a common manifestation of sarcoidosis. However, due to the lack of histological/imaging details about the source of bleeding, it remains rather descriptive. Furthermore, I suggest a different interpretation of this case (resulting in a different “take home message” for physicians treating neurosarcoidosis patients).

Major Revisions:

1) In the report by Dwyer et al. 2013 (cited in the manuscript) different cases of CNS hemorrhage (all cerebral) were described. There is sufficient evidence to suggest that hemorrhage in neurosarcoidosis is caused by vascular pathologies (venous, arteriolar, mico-AVM) induced by the disease itself. The effect of long-term steroids in the pathophysiology of hemorrhage, albeit reasonable, remains speculative. In the case presented, there is no further evidence to support the role of steroids as the cause of bleeding. Immunosuppressive therapies are warranted if a surge of disease activity is observed. Therefore, the initial ICH or siderin deposits should not be an argument to withhold sarcoidosis treatment. The interpretation of the case should be adjusted.

Minor:

1) ACE is not a suitable parameter to monitor neurosarcoidosis activity in the CSF. sIL-2 receptor or increase in spinal fluid cell number would be more appropriate. Was CSF analyzed after the relapse? How did the parameters develop? Were oligoclonal bands investigated?

2) Please check English (abstract and text).

3) It would be interesting to demonstrate brain MRI before the detection of ICH.

**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:

no competing interests