Reviewer’s report

Title: Plasma exchange in severe leptospirosis with multi-organ failure: A case report

Version: 1 Date: 17 February 2013

Reviewer: Joshua King

Which of the following following best describes what type of case report this is?: Other

If other, please specify:

Uncommon treatment of a severe presentation of a disease

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?: No

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

Is the anonymity of the patient protected?: Yes

Comments to authors:

Overall, interesting and potentially valuable report of leptospirosis treated by plasma exchange but with some issues to address before publication.

The discussion of potential mechanisms by which plasma exchange may benefit patients with severe leptospirosis is not robust; to make a significant addition to the extant literature describing treatment of leptospirosis with plasma exchange and apheresis, this should be developed further. In particular, putative mechanisms are not discussed until the final paragraph of the paper, and
mentioned only briefly; this should be developed in the main body of the discussion. Mechanisms of how leptospirosis can cause disease are nicely laid out, but connections to how plasma exchange may alter the pathophysiology of the disease should be clearly made in each of the sections which address different aspects of the disease.

The patient's weight, height, and hematocrit are not mentioned in the paper; these are critical pieces of data, as they are necessary to calculate a plasma volume. The authors should calculate the patient's plasma volume and discuss the dose of plasma exchange delivered in terms of numbers of plasma volume, not in terms of volume of plasma delivered (e.g., 1.5 plasma volumes exchanged rather than 4L). This would better allow extrapolation of the protocol to other scenarios.

There are a few grammatical and linguistic issues, with the major one being inconsistencies in how leptospirosis, Leptospira, leptospiral, etc. are capitalized and italicized - these should be identically and correctly done throughout the paper.

This is an interesting case report of a disease uncommon in developed countries, and could potentially be of value to clinicians or investigators; however, I would recommend addressing the above issues prior to publication.

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

**Declaration of competing interests:**

I declare that I have no competing interests.