Reviewer’s report

Title: Hyperbaric oxygen treatment of spinal cord injury in rat model

Version: 0 Date: 26 Oct 2016

Reviewer: Siew-Na Lim

Reviewer’s report:

The manuscript has relatively improved, however I still believe that there are several concerns needed to be addressed.

1. The method of tissue harvest was still unclear and the interpretation of the H&E stain remained to be inappropriate.

(a) The authors added the statement " Proteins were prepared from spinal cord tissue obtained from the lesion epicenter" in the section of Methods, this statement is very confusing and I am not sure why protein was prepared from spinal cord epicenter since the spinal cord tissue was only processed for H&E stain.

(b) At least a semiquantitative scoring of the histopathology changes (H&E) should be performed. With only demonstrating one representative H&E stain in each group, the authors cannot made a conclusion that the cystic degeneration in SCI-HBO rats was significantly less in the SCI-control rats.

2. More method details should be included. For instance, it is unclear whether the authors used only female or male SD rats, or both of them. This is important since male or female rats may have different locomotor recovery pattern after SCI. It is also unclear about the meaning of Sham-SCI, do the surgically exposed mean laminectomy? How were the treatment window and duration of HBO chosen?

3. Still inappropriate reference and statement noted. For example in the third paragraph of Discussion, the authors only changed the word "patients" to "rats", but did not change other part of the statement accordingly (It is unusual to say clinically in preclinical study).

4. Why SOD and MDA analyses were not performed at the later time points (i.e. 10 and 20 days) after SCI, the authors should specify the reason.

5. There is some grammatical and typographical errors in the manuscript, therefore the manuscript needs modification before considering it for publication.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No
Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

Quality of written English
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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