Reviewer’s report

Title: Patterns of traumatic brain injury and six-month neuropsychological outcomes in Uganda

Version: 0 Date: 31 Aug 2018

Reviewer: Marianne Løvstad

Reviewer's report:

Review comments to BMC neurology Patterns of traumatic brain injury and six-month neuropsychologic outcomes in Uganda

This paper describes characteristics of, and 6 month outcomes in a cohort of 171 persons with TBI compared to a group of non-injured controls.

The findings are interesting, and show some striking differences in demographics of TBI compared to the literature from Europe and the US. Some issues are still worth remarking:

In the introduction (p. 4, line 24) the authors state that 6 month outcome is necessary to determine persisting symptoms. I would say that even 6 months is early in the recovery course, and that this should be mentioned. The patients can expect substantial spontaneous recovery for a long time after this.

Re inclusion criteria and sample: only patients able to provide informed consent before leaving the hospital are included. The paper does not state how long their admissions were, but I would think this gives a sample bias in the direction of losing the most severe injuries. Consent could have been provided at the 6 month follow-up. Also, it seems that patients with the mildest injuries do not seek hospital treatment, as more than 70% of patients had intracranial injuries on radiological examinations. These sampling issues should be duly noted in the discussion.

Regarding the test battery, the authors say it has been validated in Ugandan children, but it seems we do not know much about how they serve adult patients. This is quite important, as the dichotomization into impaired/non-impaired is based on these norms, with a rather strict cut-off of 2 SD. Please comment. Also, the battery does not seem to assess executive functions much, while we know that problems with regulation of cognition, but also emotions and behavior, are core long-term symptoms of TBI.

Throughout the manuscript the word "cases" is systematically used. Please change to "persons with TBI" or patients, as the terms seems somewhat objectifying.

I am quite surprised that only 8% displayed physical disability, in such a severe sample, and with many motorcycle accidents. What do the authors think is the reason for this?

Regarding PTSD, many more persons were assault victims compared to what would have been the case in Europe and the US. I would like to invite the authors to discuss this in relation to
PTSD symptom burden. Also, as the authors note, they have not diagnosed PTSD. I would recommend to use the term post-traumatic stress symptoms instead of PTSD which is a reference to a specific diagnosis.

I found the big difference from Europe and the US in cause of injury intriguing, ie that such a large proportion of the traffic accidents were motor cycle incidents, and that violence was so common. It would be interesting to see the authors compare their findings in relation to demographics to other studies in more detail in the Discussion.

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.

Yes

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 am able to assess the statistics

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

Needs some language corrections before being published

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal