Author's response to reviews

Title: Clinical and electrophysiological features of post-traumatic Guillain-Barré syndrome

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Author’s response to reviews:

11/3/2017

Tjalf Ziemssen
Editorial Office
BMC Neurology

Re: Manuscript # NURL-D-16-00516

Dear Editor:

Thank you for your letter sent on 15/2/2017 regarding our manuscript “Clinical and electrophysiological features of post-traumatic Guillain-Barré syndrome”. We also appreciate the reviewers’ overall positive comments. Guided by their feedback, we have revised our manuscript, and these are indicated by tracked changes.

Firstly, we apologize for mistakes in the original manuscript such as the wrong word “fraucture”. In addition, we added a comment on the potential differential diagnoses of post-traumatic GBS
in the manuscript. Moreover, following the Reviewer’s suggestion, we also provided a paragraph on the discussion section on possible treatment options of post-traumatic GBS. These issues have been addressed in the revised version.

With these appropriate revisions, we believe that we have thoroughly addressed the reviewers’ concerns.

Additionally, we would add a new author, Yating He, who help improve the quality of the manuscript.

Below, please find a point-by-point response to reviewers’ comments.

We thank you for your time and consideration in re-evaluating the manuscript.

Sincerely,

Junwei Hao, PhD.
(On behalf of all authors)

Point-by-point reply to the Reviewers’ comments

Editor Comments:

It is essential to get special language editing of this manuscript.

Reply: This is truly a valid concern and we thank the editor for raising this issue. We have invited a native speaker to help us improve the manuscript again. Additionally, we would add a new author, Yating He, who help improve the quality of the manuscript.

Reviewer #1:

1. I still have some concerns regarding language editing.

Reply: This is truly a valid concern and we thank the reviewer for pointing this out. We have invited a native speaker to help us improve the manuscript again.

2. Please indicate at the methods section that there was no further NCS or CSF examination other the first ones at diagnosis. It would be interesting to see data from these patients even after one year after diagnosis.

Reply: We thank the reviewers for noticing this. According to the reviewer’s suggestion, we provide a modified statement at the methods section in the revised manuscript.
Due to the retrospective nature of the study, there were no further nerve conduction studies (NCS) or CSF examinations other than those performed at diagnosis.


Reply: We apologize for our carelessness and thank the reviewer for noticing this. We have corrected the mistake in the revised manuscript.

4. Please add to the discussion a comment on the potential differential diagnoses of GBS after (mostly severe) trauma such as critical illness polyneuropathy. In the reported cases, indeed NCS studies and CSF studies point out towards axonal GBS.

Reply: This is truly a valid concern and we thank the reviewer for pointing this out. Following this suggestion, we have added the comment in the revised manuscript.

The cases reported here highlight the importance of differentiating axonal GBS from critical illness polyneuropathy, which is a common cause of axonal polyneuropathy in trauma patients [1]. However, this can be difficult as axonal GBS can have striking similarities to critical illness polyneuropathy, in regards to clinical presentation and electrodiagnostic studies. Cranial nerve involvement, such as that associated with bifacial weakness, and dysautonomia are uncommon in critical illness polyneuropathy. In these patients the degree of sensory symptoms and sensory nerve involvement tends to be mild. Albumino-cytological dissociation in CSF and the presence of certain serum anti-ganglioside antibodies also support a diagnosis of GBS. Finally, critical illness polyneuropathy does not generally respond to IVIG and/or plasma exchange, whereas GBS does. Despite these features, in the setting of critical illness or trauma, it remains a diagnostic challenge to distinguish axonal GBS from critical illness polyneuropathy.

5. What about the time to treatment initiation for each patient? Did it correlate with a better outcome for some patients?

Reply: We thank the reviewer for raising this issue. According to this suggestion, we have added it in Table 2 in the revised manuscript. Certainly, taking GBS into consideration is difficult for most surgeons. It often takes some time for surgeons to recognize and confirm the condition. For instance, GBS was diagnosed averagely 7 days after its onset in the 6 patients we report here. Then, the therapeutic measures specific to the condition are often delayed. This delay might lead to poor prognosis. To avoid such delay, we recommend neurologic examinations to assist with the diagnosis when there is unexplainable progressive muscle weakness.

6. It would be helpful for the clinician-reader to add a paragraph on the discussion section on possible treatment options in case of post traumatic-axonal GBS.

Reply: This is truly a valid concern and we thank the reviewer for raising this issue. Following this suggestion, we have added it on the discussion section in the revised manuscript.
Post-traumatic GBS is a rapidly progressive and severe neurologic complication that occurs after trauma [1-3]. Thus, when there is unexplainable progressive muscle weakness after trauma, GBS should be taken into consideration and corresponding measures should be taken to relieve the condition. Both general medical care and immunological treatment are essential. All patients with sufficient suspicion of post-traumatic GBS should be monitored for possible respiratory failure and cardiac arrhythmia, and timely transfer to intensive care unit when needed. Reports of GBS in trauma patients is limited to case reports and no systematic research has been found so far discussing its immunological treatment. Therefore, an empiric course of intravenous immunoglobulin or plasma exchange might be valuable as it has been shown to improve prognosis [1, 3, 4]. Moreover, we found that some cases showed some clinical improvement, while others did not, when treated with intravenous methylprednisolone [2, 5]. Therefore, further research regarding the immunological treatment of post-traumatic GBS are required.

References


