Author's response to reviews

Title: Recovery of brachial plexus lesions resulting from heavy backpack use: A follow-up case series

Authors:

Tuula Nylund (tuula.nylund@mil.fi)
Ville M Mattila (ville.mattila@uta.fi)
Tapani Salmi (tapani.salmi@hus.fi)
Harri K Pihlajamäki (harri.pihlajamaki@helsinki.fi)
Jyrki P Mäkelä (jyrki.makela@hus.fi)

Version: 2 Date: 4 November 2010

Author's response to reviews: see over
To the editor of BMC Musculoskeletal Disorders

Dear Sir:

Please find enclosed our revised manuscript “Recovery from brachial plexus lesions resulting from heavy backpack use: A follow-up study” by Tuula Nylund, Ville M. Mattila, Tapani Salmi, Harri K. Pihlajamäki, and Jyrki P. Mäkelä. We have read the constructive comments of the referee and have made corrections accordingly.

Major compulsory revisions:

1. More detailed description of how the authors concluded that the weight of 40 kg and above was found to be causative of the palsy. An additional table with relevant data needs to be provided.

   The method obtaining the weight estimate is now described (see also below). A new Table 1 describing our calculations is enclosed.

2. In a previous study from the same group (Reference 4), the authors have mentioned that “since the review was retrospective, there was missing data on potentially confounding factors such as weight” and “the lesions are relatively uncommon, so it would be difficult to have an adequately powered study examining the major potentially confounding factors”. The authors need to clarify how these issues were addressed in this study.

   In our previous study, the data concerning the onset and duration of symptoms was studied only from the hospital documents. For the present study, we developed a structured questionnaire about the circumstances at symptom onset and about the condition of the upper limb. The symptoms at the end of conscription, the duration of symptoms, the effects of the symptoms on work and leisure activities were systematically asked for. Moreover, the estimate of the load weight was specifically questioned from each subject. Particular effort was put to find out about the type of the carried load at the onset of symptoms. As we know the weight of different types of military equipment, we could then produce an estimate about the carried load. This is now explained in the manuscript.

   In our previous study, we searched for predictive signs of plexus compression from body structure or physical fitness. The uncommon nature of the lesion hampers adequate powering of a study of these confounding factors not standing out clearly between healthy and affected conscripts in prediction of the lesion probability. As our present study shows, these factors seem not to significantly affect the recovery from the lesion, either.

3. The 6 patients analyzed over phone: how was the motor recovery assessed in this group and the combined data analyzed?

   The same systematic questionnaire was completed by the phone interview of these patients. Their contribution to the final analysis is now displayed in Table 1.
Minor / discretionary revisions:

1. The title “Recovery of brachial plexus lesions resulting from heavy backpack use: A follow-up case series” brings out the substance of the paper better.  
   Corrected

2. Abstract: Background line 2: I would not agree that this condition is “common”. I would prefer to use “have been reported “instead.  
   Corrected

   We kept this word to emphasize the systematic collection of the data

4. Line 4: maybe rewritten: patients were followed up....  
   Corrected

5. Results: Line 1: “lesion” maybe replaced with onset of weakness.  
   Corrected

6. Line 2, 3, 4: The weight of the ...) what do you mean by this statement? Please word differently.  
   Worded differently

7. Line 4: maybe changed to: The initial electromyography did not predict recovery.  
   Changed

8. Background

9. Paragraph 1, Line 2: “commonly occur” maybe changed to “have been reported”.  
   Changed

10. Paragraph 2 Line 5: Reference 4 to be shown after the “previously reported series” if the author means the previous report from the same authors and remove reference [9, 10] in Line 6.  
    We refer to references 9, 10 in this sentence, not to reference 4. The sentence has been modified to avoid misunderstanding.

11. In section Methods, Tests: Six patients were interviewed by phone, was the DNA testing for HNPP done in the patients?  
    No. This is now clarified in the text.

12. Background variables: provide reference for classification of body structure by physiotherapist.  
    As the classification was not based on detailed measures of somatotype, and as it did not predict recovery, we have removed this data from the manuscript.
13. In Predictors of EMG results, please clarify what you mean by sentence 1&2. 
*We have modified the paragraph and also give more information on this in Table 1.*

14. In Discussion paragraph 2, please rewrite for more lucid understanding. 
*Rewritten*

We now hope that the manuscript is acceptable for publication.

Sincerely yours

Jyrki Mäkelä