Reviewer's report

Title: Development and Validation of the Patient-Rated Ulnar Nerve Evaluation

Version: 1 Date: 5 October 2012

Reviewer: Mauro Mondelli

Reviewer's report:

Major Compulsory Revisions

1) At page 8 the "patient recruitment" is poorly described.
   a) The authors should provide details on type and duration of the symptoms, objective neurological findings, occupation of patients, presumed causes of UNE, electrophysiological methods and results.
   b) The authors excluded all patients unable to complete self-report forms. How many were these patients?
   c) What do “comorbid health or life conditions” mean?
   d) Were patients with associated carpal tunnel syndrome (and other diseases of peripheral nervous system) excluded or included?

2) I think that pain items referred to "hand/arm" is not sufficiently specific, because, for example, work-related UNE is associated to pain due to other musculoskeletal disorders than UNE.

3) Test-retest reliability of the questionnaire was tested but the authors did not provide details i.e. did the authors administer the same questionnaire to a sample of the same patients to verify if the patients give the same response to separate occasions (for example after 2-3 days)? If so, clarify the methods. I do not well understand the columns “test 1” and “test 2” of table 4. If these columns refer to test-retest reliability, the authors must report these methods in the method section of “reliability” at page 10.

4) The ulnar nerve gives off no branches in the upper arm, it supplies the flexor carpi ulnaris and flexor digitorum profundis and many intrinsic hand muscles. The ulnar nerve provides especially to fine hand movements. So what’s the item “lift a heavy object”? The muscles of the ulnar nerve are not involved in lifting heavy objects. Moreover in table 3, in third column “Meaning of ICF language”, the authors explain what “lift a heavy object” means, but “lift a glass from a table” even from a lower to a higher level is not a heavy movement. The authors must clarify this point.

5) The authors should provide a convincing explanation of the utility of the first item of pain “when it is at its worst” in the view of the following five items that specify “when”.

6) The authors refer to Kleinman-Bishop score when they report type of work, severity of residual symptoms, hand strength (tested with pinch and grip), results
of surgery in table 6, leisure activity, work status. These important findings are insufficiently described. How did the authors define “heavy or light, repetitive or intermittent” the type of the work? How “severe, moderate and mild-occasional” symptoms were evaluated? How pinch and grip were measured? How the authors define “worse”, “unchanged” and “better” the “change following surgery”? Only sensitivity is clearly described (two-point discrimination). It is insufficient and too vague the reference to Kleiman-Bishop score.

Minor Essential Revisions

Introduction
At page 3, the sentences of lines 6-15 (“The prevalence of UNE… were not [7]”) and at page 5 lines 13-17 (“The first author… measures”) are useless in the view of the aim of the paper.

Methods
1- By whom, how and when (how many days before surgery, after electrophysiological confirmation of clinical diagnosis or…) was the questionnaire administered?
2- At page 6 in “Scale development process” the items were grouped in 3 constructs: pain, sensory symptoms and motor symptoms. In the following PRUNE paragraph the items were separated in four subscales (pain, sensorimotor, specific activity and usual activity). This can cause of confusion in the reader. Also in “scale development process” the items should be separated in the same four constructs.
3- The acronym ICF appears in the manuscript for the first time at page 6 in the penultimate line of “Scale development process” without full explanation. The explanation of ICF was provided only at page 9. Correct this editing mistake.
4- At page 7 the parentheses of the sentence “(by dividing the grand total by 2)” should be eliminated.
5- At page 7 what does “the final stage of beta testing” mean?
6- At page 10 what does “(2,1)” mean after reliability intraclass correlation coefficients?
7- At page 12 -Responsiveness- what does “change score” mean?
8-A brief description of the type of surgery or a reference can be reported.

Results
1- At page 13 the central section is heavy to read, some concepts are difficult to understand
2- At page 14, antepenultimate line the figure reporting “carrying a heavy object..” is not 2b but 2c.
3- Was there relation between the total score and age and level of education of patients?
4- The authors did not report the results after 3 months, especially the effect size after 3 months should be provided.

Discussion
Most of page 17 is cumbersome and difficult to understand, it could be shortened and made more intelligible

In table 1,
Items “affected side”: the choice “left and right” is useless, change in dominant and not dominant side.

Figures
I think that Figure 3 corresponds to figure 2b, if so the authors could report “figure 2b”.
What do the open circles mean in figures 2d (=fig5) and one open circle with four little rectangles in fig.3?

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests