Author's response to reviews

Title: Cognitive function and quality of life in multiple sclerosis patients: a cross-sectional study

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Version: 5 Date: 6 January 2011

Author's response to reviews: see over
Dear Jelena Drulovic and Prof. Robert Zivadinov,


We thank you for accepting a new version of our manuscript. We are grateful to the reviewers for their examination of our revised manuscript and their constructive comments/suggestions. We integrated their suggestions in this version. We highlighted the changes made in the manuscript (yellow color).

We hope that this new version will be acceptable.

Yours sincerely,

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Point-by-point response: reviewer's reports

Reviewer's report 1: Julián Benito
Title: Cognitive function and quality of life in multiple sclerosis patients: a cross-sectional study
Version: 3 Date: 25 November 2010

Accept
Level of interest: An article of importance in its field
Quality of written English: Acceptable
Statistical review: No, the manuscript does not need to be seen by a statistician.

Authors’ response
This report did not require changes or alterations.
Reviewer's report 2 : Pablo Villoslada
Title: Cognitive function and quality of life in multiple sclerosis patients: a cross-sectional study
Version: 3 Date: 30 November 2010

Authors have addressed properly my concerns. Regarding my first point related with the definition used for defining cognitive impairment my suggestion is to keep results and tables based in the original definition, but stating in abstract and results that prevalence of cognitive impairment was 37-78%, depending in the criteria employed. This is critical, because future meta-analysis and review in the topic of cognitive impairment are going to pick-up this data.

Authors’ response
In accordance with the proposition of the reviewer, we keep our initial definition of cognitive impairment, and we added the range of the prevalence of cognitive impairment, depending in the criteria employed: see abstract and results section.

- In the abstract (page 3, lines 17):
‘The BRB-N classified 37% of the patients as cognitively impaired.’
will be replaced by,
‘The BRB-N classified 37-78% of the patients as cognitively impaired, depending on the definition of cognitive impairment.’

- In the results section (page 7, lines 12-13):
‘The BRB-N classified 37% of patients as cognitively impaired.’
will be replaced by,
‘The BRB-N classified 37-78% of the patients as cognitively impaired, depending on the definition of cognitive impairment.’

Level of interest: An article of importance in its field
Quality of written English: Acceptable
Statistical review: Yes, and I have assessed the statistics in my report.
Reviewer's report 3: Christoph Heesen  
Title: Cognitive function and quality of life in multiple sclerosis patients: a cross-sectional study  
Version: 3 Date: 7 December 2010

I appreciate the responses and changes of the authors. However, some of my concerns might have not been clear enough in their explanation from my side so I would shortly like to readdress them with a suggestion how they could be integrated in the paper. When correlating health-related QoL measurements with objective disability dimensions the issue arises if beyond an overall impact specific correlates can be found in specific subscales. I think authors would agree that a quite strong correlation would be expected by comparing 25FWT with a quality of life subscale on mobility. And higher correlations to this subscale compared to the whole scale score with 25FWT would underline validity of the construct. However, this issue is much more complicated in cognition. Self-perceived deficit might not at all correlate with objective tests due to coping strategies. But on the other hand the relevance of a psychological subtest finding belwo norms for daily life is an issue to be studied. Both aspects have rarely been addresed in MS studies. Therefore it is a pity that authors made this huge effort of doing detailed cognitive testing on one hand but without trying to measure as best as possible cognitive quality of life. This of course reflects a coping dimension which by the way is included in any quality of life rating but maybe more prominent in cognition. In fact it would be very helpful to have a clearer idea which cognitive deficits impacts most on patients. So is might be that attention and executive functioning are much more relevant than memory the later being more prone to compensation techniques. I therefore would suggest a sentence like the following in a limitation section: “As a limitation we did not assess thoroughly cognitive quality of life nor impact of cognitive dysfunction on daily functioning. Further studies should try to disentangle the impact of different cognitive domains on cognitive quality of life on one hand and on cognitive daily functioning on the other hand.”

I would refrain from postulating that health-related quality of life conceptionally would not strongly correlate to cognitive status. As outlined above more work is needed.

Authors’ response  
We appreciate the comments made by the reviewer. We agree with the general idea. Further studies should provide the role of the different aspects of the cognitive dysfunction (attention, memory, and executive function) on the impact of quality of life. In this way, we think that the sentence proposed by the reviewer clarifies this point, and we added it the in the end of the manuscript (page 12, line 5, limitations):

“We did not assess thoroughly cognitive QoL nor specific cognitive dysfunction on daily functioning. Further studies should try to disentangle the impact of different cognitive domains on cognitive QoL on one hand and on cognitive daily functioning on the other hand.”

Minor point: Only Gold 2003 investigated the validity of qol assessments in cognitively disabeled MS patients.
Authors’ response
We corrected the mistake regarding the reference of Gold (Gold 2001). We apologise for this error, and suppressed it in the text (page 9, line 16).

Assuming these changes will be performed I would be happy to see the paper published without any further reviewing.

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.