Reviewer's report

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

Version: 2 Date: 12 September 2010

Reviewer: Pablo Villoslada

Reviewer's report:

In this study authors evaluate an important question, which is the impact in the quality of life of cognitive impairment in people with MS. They analyze a hospital cohort of 124 consecutive patients with MS and they apply two QoL questionnaires (SF36 and MusiQoL) and the BRB-N as cognitive battery. They found 37% of patients were cognitively impaired using the definition of 2SD below the normative data in 3 subtests. Although they found moderate correlations between QoL and cognitive domains, they disappear after controlling by the confounding factor depression, fatigue, marital status, age and EDSS.

Major Compulsory Revisions

1. Authors use a very strict definition of cognitive impairment (they acknowledge such aspect in the discussion), which is less sensitive than others. I suggest to test another more sensitive definitions as used in ref 40-43 (e.g. 1.5 SD below the norm in 2 subtests) and assess is a more sensitive definition has an impact in the multivariate model.

2. The dataset is biased to SP and more disabled patients, and they are more unemployed than younger populations. In this set of patients, QoL could be more dependent on other factors than cognitive impairment because they are not force to perform at same level than younger people with MS. Although this is acknowledge in the discussion, this should be assess by stratifying the dataset in RR and progressive patients.

3. Tables: indicate always what means values (e.g. “r” coefficient, or SD)

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.

Declaration of competing interests:

I declare that I have no competing interests