Reviewer's report

Title: Exploring the predictive value of the EP score in Multiple Sclerosis within an appropriate dataset: a hint for an early identification of benign MS?

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Reviewer: Marcus D Souza

Reviewer's report:

General comments:
This is a paper investigating a very interesting and clinically relevant subject, i.e. the predictive value of evoked potentials in multiple sclerosis. Although this subject has a great practical importance for neurologists, the paper is very complicated, loaded with statistical terms and in general incomprehensive for a neurologist with average statistical knowledge. Even the structure of the paper, with “methods” following “results” and “discussion”, is confusing for the reader. Moreover, the reader cannot clearly conclude if the objectives of the study were fulfilled. For example, in "background" the authors state that the aim was "to determine how an appropriate dataset should be defined" and "to create a multivariate logistic regression model for predicting clinical disability". However, from the way the results are presented and discussed, the reader cannot clearly understand what is the "appropriate dataset" and how a neurologist can in fact use this "model" to predict disability progression for his/her patients. The entire statistics-session is incomprehensive (e.g. terms like Receiver operating characteristics should be at least briefly explained). Also the "results" should be explained better (what is the “splitting of each variable by the mean value of the other one”? etc.).

Some of the points that should be also made clearer by the authors are:
- Definition of TT2 (is it since first MS symptoms or since NE?)
- Definition of “benign MS” (it is implied in the “discussion”, but should be also clearly explained in “methods”, especially since recent studies highlight the insufficiency of current definitions of benign MS, which do not include neuropsychological tests).
- Why were MEPs not performed (insufficient data?)
- Were the patients of this study all untreated?
- Was a recent relapse an exclusion criterion?
- Was the EDSS used like in clinical trials (standardized version, “neurostatus”)?

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

Quality of written English: Acceptable
**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests.