Reviewer's report

Title: Prospective memory tasks: a more sensitive method for screening cognitive impairment in ALS?

Version: 3 Date: 27 August 2012

Reviewer: Eli Wertman

Reviewer's report:

The paper is very interesting, and implicates a relatively new neuropsychological/neurobehavioral concept into the clinical field. The need for higher level clinical evaluation of the executive functions is currently unmet to the needed level. The area of ALS-FTD disorders is craving for such ideas. However, there are some points that demand significant revision.

Minor Essential Revisions
-Introduction-
-there is a need to present the concept of prospective memory (PM) and to define it as accurately as possible. This should include some review of the current literature about the subject.
-there is a need to compare the existing executive tests with the newer ones- e.g., PM, concept formation etc.
-the frontal neuroanatomy (as well as other cortical areas) should be more specifically presented
-the association between PM and PFC should be more deeply presented (e.g., area 10),
-the difference between EBPM and TBPM should be related to the current research, so that the selection of the 2 tests is justified.
-the issue of "PM as a sensitive ALS index" is not clear. The possibility that PM tests will be positive and other tests will not-might be the result of specificity and not sensitivity.
-Methods-
-what are "RM1" and "RM2"-how they are related to the main question?
-the standard tests for evaluation of executive functions that were selected by the authors seems not to be enough. It seems that there is a need for something like the FAB, EXIT 25 etc.,. The MMSE does not screen executive functions properly.
-Results-
-there should be a table with the PM results in addition to what is written
-the results of PM in relation to the bulbar or spinal presentation should be presented

-Discussion-
-the discussion is not enough-there should be more details of the current basic and clinical research so that the association between PM, its types and ALS would be better understood.
-it is needed that the cortical neuroanatomy (structural and functional) of ALS will be related
-if there is a difference of PM by bulbar/spinal presentation- it should be discussed ,since it will help in validation of the correlation between the PM tests and the progression of the disease, .This is because there is a difference in the PFC involvement between the two forms.
-implications for treatment should be mentioned
-in general- the points that were mentioned in the comments to the introduction-should be further discussed in the discussion
-the limitation of the study should include also some exolanation to the lack of neuroimaging ,

**Level of interest:** An article of importance in its field

**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'