Reviewer’s report

Title: Falls and Fear of Falling: The Role of Sustained Attention in Older Adults.

Version: 1 Date: 23 September 2011

Reviewer: Jasmine Menant

Reviewer’s report:

General comments

The study investigates the relationship between performance and variability in sustained attention and fear of falling and retrospective falls in older people. This study explores a novel and important risk factor for falls in older people. If proven to predict falls in future prospective falls studies, this simple test of sustained attention could easily be included as part of falls risk assessments.

There are strong points: overall the manuscript is clearly-written and easy to follow and the study sample is large enough (n=458). Overall the methods appear sound apart from some potential statistical analysis concern (see specific comments below). The second paragraph of page 15 in the discussion is interesting and proposes a nice interpretation of the data.

Please find below some specific comments.

Minor essential revisions

Methods

1. Paragraph 1, page 7: Please specify what the inclusion and exclusion criteria for this study were. In the discussion, it is mentioned that none of the participants had a history of stroke or dementia (p 15), however this is not specified in the methods. Was there any cut-off score for the MMSE?

2. Paragraph 1, page 7: For each instrument used (HADS, CES-D CFQ...), please specify the minimum and maximum score achievable as well as what a high / low score indicates. Where possible, also add references of studies that developed these scales.

3. Paragraph 2, page 7: Given that the falls data were collected retrospectively, the classification of fallers into faller-12 months and faller-6 months might not be very accurate. This might need to be acknowledged in the limitations.

4. Statistical analysis, pages 9 and 10: It is not clear from this paragraph what the dependent variables in the logistic and linear regressions are.

Results

5. Given that according to table 1 the two groups differ significantly in age and men/ women ratio, I wonder why the statistical analyses of the SART-related variables were not adjusted for these two major confounders. The authors could add asterisks to the data on table 2 to indicate where the significant differences remain after controlling for age and gender in an analysis of covariance.
Similarly, asterisks should be added to Table 3 to illustrate whether the correlations remain after controlling for age (partial correlations).

6. Paragraph 2 page 11: “falling and female gender [...] female versus male group”: this sentence is unclear.

7. Paragraph 2 page 12: “Increasing SDRT; p=0.002 [...]”: this is unclear. In addition, according to Table 3, the correlations between SDRT and MFES for non-fallers and fallers (p=0.03 and p=0.012) are both below 0.05, thus presumably significant. In fact, none of the p-values given in Table 2 appear to correspond with those written in this paragraph of the results. Please clarify.

Discussion

8. The limitations of the study involve the recall bias inherent to retrospective falls data collection and which the authors should acknowledge, especially as the fallers were further divided in groups.

Tables and Figures

9. Table 2 and Figure 1 present the same data and therefore are redundant; use either one to display the results.

Discretionary revisions

Abstract:

1. The first two sentences of the abstract could be taken out as the facts presented are well documented; the abstract could start with “Previous evidence [...].”

Introduction:

2. The introduction could be more concise, going straight to the background relative to attention and falls followed by the rationale for the study and aims, i.e. the 1st and 2nd paragraphs could be cut down to a sentence each.

References

3. There is more recent major work on fear of falling that could be cited, see papers from Delbaere et al.

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.

Declaration of competing interests:

I declare that I have no competing interests