Reviewer’s report

Title: Behavioral and neural adaptations in response to five weeks of balance training in older adults: A randomized controlled trial

Version: 0 Date: 30 Apr 2017

Reviewer: Zhang Changzheng

Reviewer's report:

The present study by Ruffieux et al. investigated the effect of age on the behavioral and neural adaptations in response to balance training. The results are of some values; however, some major questions should be clarified.

1. In Abstract: the result description is quite simple, while the other parts are tedious. Please reorganize them.

2. In Results: a, 1, The authors should include a clear and succinct title for each figure legend to describe the results or the major findings of the figure, not just using a phrase; b, in Fig 1, why the errors show an obvious increase between the pre and post values in the control group, see Fig 1b? c, Suggest to include the number of the participants in each panel, such as "Control group (n=12)", not "N = 28 for (a) and (c)"; d, The figures are repetitive explanations of the tables, which needs to be re-designed; e, Please include statistical results of TMS-related changes (or no changes) on the behavioral performances in old adults.

3. In Discussions: Please delete the subtitles.

Level of interest

Please indicate how interesting you found the manuscript:

An article whose findings are important to those with closely related research interests

Quality of written English

Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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