Reviewer's report

Title: Passive ankle movement increases cerebral blood oxygenation in the elderly: an experimental study

Version: 1 Date: 5 August 2014

Reviewer: Helen C Goodman

Reviewer's report:

Major Compulsory Revisions

1. There should be a section on Limitations to the study and include factors such as the participants being solely female.
2. The rationale for the experimental conditions ought to be provided even if only as a reference or in a table. Why, for instance, was a 3 minute period chosen for the rest period?
3. The results section needs re-writing so that the figures illustrate the text rather than the text being used to explain the figures. The authors should state their findings and then reference the figure which illustrates them.
4. In particular the paragraph starting at line 162 needs clarifying. It appears to contradict what has been said earlier.
5. The studies referenced in the first two paragraphs of the discussion and the explanation of the TCD and NIRS and muscle pump activity belong in the background section but are very relevant and clear.

Minor Essential Revisions

1. Information on the clinical significance of the change in values would be useful as they are very small even though statistically significant. Although the authors state that #G2 values of 0.02, 0.13, and 0.26 were interpreted as small, medium, and large, the reader would benefit from understanding how this relates to the clinical state of the subject.
2. The interpretation of the results belongs in the text rather than under the figure headings.
3. Line 75 – grammatical error ‘However, it is seems difficult’ – the ‘is’ is not required.
4. What is meant by ‘community dwelling’? It does not translate well. Are these ladies living in the community in their own homes?
5. There needs to be an explanation as to why only women were chosen.
6. Line 149 - The HR decreased rather than deceased (hopefully!)

Discretionary Revisions

1. It would be interesting if the authors commented on the possible prevention of
falls if patients are encouraged to do ankle exercises prior to getting up as falls are more common in the elderly and debilitating for the patient and costly for the healthcare system.

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests