Reviewer’s report

Title: The correlation between postural control and upper limb position sense in patients with chronic ankle instability

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Reviewer: Gwen Fernandes

Reviewer’s report:

Thank you for a very interesting paper and CAI is indeed a topical subject at the moment. I found the paper generally well-written and considered with very good use of references to the current literature. Here are a few comments to consider.

Minor Essential Revisions:

1) The conclusion of the abstract needs to be a bit stronger in terms of linking study findings to the implications on current clinical practice. It almost jumps from your findings to the fact that there needs to be a change in current practice - could you specify the detail.

2) In the analysis section, I would like to see what tests of normality were used by the researcher. Further to this, as the data was indeed non-parametric, the use of mean and the standard deviation to present the data is almost redundant. If the data is skewed, then the mean is also distorted and is almost meaningless. It would be better to present the median and the inter-quartile ranges for the data points that are not non-parametric.

3) In the discussion section, it would be good to see some reference to the sensitivity and specificity of the individual postural and positional tests used, if this has been done previously? I found it interesting that there wasn't much of a difference between the CAI group and control but is your equipment actually sensitive enough to pick up the difference? Proprioception is, as you say, made up of different components. So which are you measuring and are you using the best method to do this.

4) Lines 208-210 and 257-258 almost contradict each other. You suggest there might be a pre-existing global deficit in proprioception but later you state (and have shown) that there is no difference in LL postural control and UL positional sense between the CAI group and the healthy controls. Therefore, maybe there isn't a pre-existing global deficit but with CAI, a difference in the way proprioception works post-injury given your result of a correlation between LL and UL in only the healthy controls. Just something you may want to make clearer to a reader.

Level of interest: An article of importance in its field
Quality of written English: Acceptable

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

Declaration of competing interests:

I have no competing interests to declare.