Reviewer's report

Title: Deviations in Gait Metrics in Patients with Chronic Ankle Instability. A Case Control Study

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Reviewer: Graham J Chapman

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Title: Deviations in gait metrics in patients with chronic ankle instability: a case control study.

MS: 1680260903132811

It is clear from the revised manuscript that the authors have made a clear effort at responding to the reviewer's comments and as a result the manuscript is much clearer and of better quality. However, I still have a few comments that will need to be addressed before I feel this paper can be accepted for publication.

Major comments

Methods/results - Based on the revisions that have been made, the authors have added details regarding number of CIA patients with bilateral and unilateral CAI. To what extent does unilateral vs. bilateral CAI instability have on gait? I would expect that patients with bilateral CAI may walk different from unilateral CAI. As this is potentially a confounding issue, the effect of bilateral vs. unilateral CAI should be investigated further within the statistics and results should be presented accordingly.

Discussion, end of second paragraph – the authors discussion the difficulty with diagnosing CAI and highlight a number of test that are used. Despite the revisions made to the discussion, the end of the second paragraph reads as though the authors suggest that gait analysis may be an objective diagnostic tool for CAI. From the results presented I think this is very speculative and a long way from making such a bold statement. My main concern is that the authors are emphasising the use of gait analyses as such a tool, especially considering this was not an aim of the study. This needs to be explicitly stated in the discussion.

Minor comments

Abstract Results section - SF-36 should have a '-' between SF and 36.

Abstract Results section – the sentence beginning ‘The scores on SF 36 8-subscale’ does not read very well and is confusing. Please reword.

Abstract Results section - A space needs to be inserted ‘inpatients’

Methods Data acquisition and processing – the authors wrote ‘physical component summary (MCS)’ whereas I believe they should have written ‘mental component summary (MCS)’. Please change accordingly.
Discussion, first paragraph, first sentence: the authors wrote ‘The present study….compared the findings with those of a group of healthy control group’. Please reword so ‘group’ is not repeated.

Discussion, 2nd paragraph page 13 – the first sentence is very speculative with little reference to past research or findings from the study. This needs to be rewritten or removed. Further on in this paragraph, the authors wrote ‘was not compared between patients with CAI and a healthy control group’. Do the authors mean, past research has not compared base of support between CAI patients and healthy controls? Please clarify and change accordingly. In the same paragraph, the authors use ‘their’. Please rewrite this as I do not know who you are referencing.

Tables 2, 3 and 4– what is more and less symptomatic mean? Please change the terminology to represent what is presented in the manuscript.

Level of interest: An article whose findings are important to those with closely related research interests

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

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