Reviewer's report

Title: The effect of taping versus semi-rigid bracing on patient outcome and satisfaction in ankle sprains: a prospective, randomized controlled trial

Version: 4 Date: 20 March 2012

Reviewer: Phillip Gribble

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The authors appear to have addressed some of the previously suggested revisions. The depiction of the patient sample sizes and loss to follow-up are still confusing. Related to the patients, the description of the Grade II and III ankle sprains are not clear. Also, it is concerning that other early interventions (crutches, medications, exercises) were not standardized or perhaps not monitored. As suggested in the previous review, please add line numbers in the future drafts to make it easier to communicate about the manuscript.

Major compulsory Revisions

1. Introduction: As suggested previously, please move the study aims before the hypotheses

2. Page 4, Inclusion criteria: The definition of Grade II and III ankle sprains is concerning. According to the authors, a Grade II was defined as having no anteriorlateral ankle laxity on exam. I would expect this to be opposite, that there would be laxity in addition to significant pain and swelling.

3. Page 5, line 3: Why is there a description of reliability of delayed examination? Were the examinations performed in this study delayed? My impression was they were performed in an emergency room, making them acute evaluation.

4. Page 5, line 4: Here the authors state a positive anterior drawer as requirement for inclusion. This contradicts the previous page that states Grade II would be defined in absence of ankle ligament laxity.

5. Page 5, line 15-16: It is stated that pain and crutches were not standardized. This is a major concern to the design of this study. If some patients received/used these interventions, while others did not, this would seem to compromise the ability to conclude the effect that the prophylactic supports truly had on the selected outcomes.

6. Page 6, line 3-9: How was the integrity of the tape monitored during the intervention period?

7. Page 6, line 12-15: It is stated that the exercises were supervised. However, there is no mention of these were actually supervised. It is stated that this was a home exercise program, which leads me to believe that there was no supervision. Secondly, it is stated that these were proprioceptive exercises. I
would argue that we cannot define exercise as proprioceptive. Proprioception is an afferent signal, and therefore, it is not trainable or correctable. If an afferent receptor is damaged with injury, it no longer functions. Finally, it is stated that a nurse prescribed the home exercise program. It is concerning as most nurses are not trained in exercise/rehabilitation in order to guide patient progressions.

8. Page 7, line 1: what grading scale was used for the Anterior Drawer test?

9. Page 7, line 16-19 More detail needed on patient positioning for the ROM testing. Was this an active or passive assessment? What was used to denote the endpoint of ROM? How many attempts were performed? Did the same investigator perform assessments on all patients?

10. Page 8, line 1-7: Regarding the sample size, why did the authors report different outcomes on different sample sizes? If there was a loss to follow-up, then only report the data from which you had a complete set of data. Therefore, should report data only from the 72 patients on which you had a full data set.

11. Page 8, line 13: Please provide Standard deviations for the mean scores. This will allow the reader to understand the calculation of the effect sizes that are reported.

12. Page 11, line 1-3: Why were crossover cases allowed? How many weeks before the crossover occurred?

Level of interest: An article of limited interest

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