Reviewer's report

Title: Reliability of two goniometric methods of measuring active inversion and eversion range of motion at the ankle

Version: Date: 24 April 2006

Reviewer: Jon Karlsson

Reviewer's report:

General

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Comments to authors

1. INTRODUCTION

The Introduction should be called Introduction and not Background. The controversy is not well stated. In other words, why is it necessary to perform this study?

A few issues should be reconsidered.

1. Page 3, line 8. Why should objective measurements like goniometers be used instead of for instance scores? Today, there are several well defined (and reliability tested) scores, which are patient-related and useful
2. Page 3, line 16. Please use the word “observer” instead of “assessor”
3. The aim(s) of the study are a bit vague. Please reconsider.

2. METHODS

The Method section is adequate, however, rather long. My question is therefore whether the authors can shorten and condense the Methods section, in order to make it more straight forward, and easier to follow?

Page 4, last 2 lines, and page 5, first line. In my opinion, patients with diagnoses such as plantar fasciitis, malleolar fracture, peroneal tendonitis and a traumatic accident (what is meant?) should have been excluded.

I have some problems understanding how the 3 observers were chosen and why. Please explain. I understand that the authors have a good reason, but it would be valuable if they explain how the observers were chosen. This is important, not only in scientific terms, but also clinical terms.

The two test positions, i.e. the sitting and prone position are well described.

The comparison to a reference standard is important.

The authors mention that there is no “gold standard”. But, I question whether for instance stress X-rays could not have been used as “gold standard”? I am well aware that stress X-rays are not perfect, but they might be the nearest thing to “gold standard” there is.

Data analysis is well done.

3. RESULTS

The Results section is well written, but quite long, and not easy to follow. My question is whether it is possible to shorten the section, report only the most important results in the text and the rest in tables?
4. DISCUSSION

First of all, the Discussion should start with a short sentence, like thisâ€¦ The principal finding of the present study wasâ€¦

Secondly, an important question is whether the eversion measurements are of no or little value in the clinical setting?

Sources of measurement error are well described, and as in every study an important part of the manuscript.

Discussion about â€œgold standardâ€, such as stress X-rays should be added.

What about the effect of gender? This should be discussed, as well as the effect of foot/ankle size.

Please elaborate on the clinical implications. In other words; are goniometers useful or not?

5. CONCLUSIONS

The Conclusion section should be shortened. It should contain only 1-2 sentences, giving the important results only. Clinical perspectives should be in the Discussion section.

6. ABSTRACT

The abstract is structured, and describes the most important results very well. It is well written and flows well.

Please do not use references in Abstract.

Please add a few words about the clinical relevance.

The key words were missing in the manuscript copy I read.

7. TITLE

The title is appropriate.

8. FIGURES

All 3 figures are good and should be kept.

9. REFERENCES

References are in good order.

10. TABLES

All tables are in good order and should be kept.

What next?: Accept after discretionary revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
'I declare that I have no competing interests'