Reviewer’s report

Title: Reproducibility of measurements of range of motion in patients with adhesive capsulitis

Version: 2 Date: 28 January 2008

Reviewer: Zeevi Dvir

Reviewer’s report:

1. Is the question posed by the authors well defined?
   Positive

2. Are the methods appropriate and well described?
   Positive

3. Are the data sound?
   Positive

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
   Positive

5. Are the discussion and conclusions well balanced and adequately supported by the data?
   See item 6 and below.

6. Are limitations of the work clearly stated?
   As far as the patients are concerned, the choice of the specific group is acknowledged. However, there is a definire void in terms of the meaning of the SDD (see below).

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
   Positive

8. Do the title and abstract accurately convey what has been found?
   Title does not mention the fact that this is an intra-tester study. This must be rectified; otherwise Positive

9. Is the writing acceptable?
Positive

General

This paper addresses a specific issue i.e. intra-tester reproducibility of RoM measurements in patients suffering from adhesive capsulitis. As the authors acknowledge there is no lack of references in the general field of shoulder RoM measurements. On the other hand, the use of combined motions as an outcome parameter, is probably innovative for this joint (but not generally speaking: see Prushansky et al's papers on combined cervical motion in Spine, and quote) while referring to a selective patient group.

However, my main concern relates to the 'unqualified' use of the SDD as a universal cutoff for change. The SDD is a very stringent criterion and as an increasing number of reproducibility studies relating to quite diversified human performance domains (e.g. pain, muscle strength, RoM etc.) indicate crossing this benchmark for proving change may be unrealistic, particularly in the late phase of rehabilitation. I expect the authors to enlarge upon this point.

Moreover, since the SDD (like some other stats. parameters) depends heavily on the sample size, one wonders whether N=32 is sufficient for making a conclusive statement. This is definitely one limitation that has to be acknowledged and related to.

Finally there is a conspicuous void regarding the prevalence of ad.cap. Obviously the greater it is, the wider is the relevance of the study. Since the authors do not provide any concrete input about this point, one may wonder how applicable are the findings.

All of the above points must be addressed.