Reviewer's report

Title: Treatment of chronic low back pain in patients with spinal deformities using a sagittal re-alignment brace

Version: 1 Date: 28 January 2009

Reviewer: M S Wong

Reviewer's report:

Comments
Re:
Hans-Rudolf Weiss and Mario Werkmann
Scoliosis
Treatment of chronic low back pain in patients with spinal deformities using a sagittal re-alignment brace

Scoliosis currently considers the following article types: Case Report, Methodology, Research and Review articles.

When assessing the work, please consider the following points:
1. Is the question posed by the authors new and well defined?
Yes.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work?
Authors should give more details about the brace design, fitting procedures and guidelines, and provide the definition of sagittal realignment test (SRT). The average age of the subject with reference to different categories, scoliosis and kyphosis should be included.

3. Are the data sound and well controlled?
Data could be better presented if the severity of the deformities is further categorized and analyzed.

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

5. Are the discussion and conclusions well balanced and adequately supported by the data?
Effectiveness comparisons between the existing brace and other braces such as soft lumbar corset could provide further value-addness to the discussion part.

6. Do the title and abstract accurately convey what has been found?
Yes.

7. Is the writing acceptable?
Yes.

Please make your report as constructive and detailed as possible in your comments so that authors have the opportunity to overcome any serious deficiencies that you find and please also divide your comments into the following categories:

Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)

1. Would you explain the definition of short-, mid-, and long-term?
2. What is the distribution of the diagnosis in the group of patients who stopped bracing at 6 months of treatment?
3. Any different findings can be observed when analyze the data separately with stopped bracing after 6 months and 18 months?
4. In the 1st paragraph of the “Material and Method”, please elaborate the “average Cobb angle of 41° ranging from 10° to 91°” stand for the measurement of scoliotic curve or kyphotic curve of the patients with scoliosis? And, what is the measurement of the kyphosis?
5. Any other findings could be observed when analyze the data separately with different ranges of measurements in kyphotic curve?
6. Any difference in in-brace and out-brace measurements of the lordotic curvature?
7. The sample size which reported in text (total: 65) is not equal to those (total: 67 = 41+4+3+2+3+3+11) in the Figure 1, please correct it.

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

1. In the 3rd paragraph of the “Background”, the “medium term” should be changed to “mid-term”.
2. Please check the consistence of using comma and dot in the numerical presentation e.g. In the 8th paragraph of the “Background”, (SD 5.6) and 7.5 months.
3. Please add the explanations of the abbreviations in the caption of Figure 1.

Level of interest: An article of importance in its field

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'