Reviewer’s report

Title: Vital capacity evolution in patients treated with the CMCR brace. Statistical analysis among 321 scoliotic patients

Version: 2 Date: 1 April 2011

Reviewer: Stefano Negrini

Reviewer’s report:

First of all I would like to compliment the authors for the big effort they made to restructure the paper. The results is really very good, and the process of publication in my view can afforded now much more easily.

Major compulsory revisions

1. The introduction should conclude with the aim of the paper
2. The last two paragraphs of the introduction should be transferred to the material and methods section
3. No words are told on the exercises performed: please add a paragraph in the material and method section
4. The exercises performed could have had a really important role in increasing the vital capacity and changing it throughout the treatment: this should at least be stated in the discussion and conclusion
5. The age range of the population appear to me too wide. Either a sub-analysis should be performed in patients who started as young as 2 years (I suggest to divide in juveniles before 10 years of age, and adolescents) or the youngest patients should be excluded.
6. We lack a thorough description of the population in the material and methods section, while it is reported in the results
7. Can you please compare the baseline characteristics of the population that you analise at the end of treatment and that of drop-outs, so to let the readers understand the reasons for such an high rate of drop-outs ? Or, are these patients still in treatment ? If so, perhaps it’s better to exclude them from the initial description
8. Do you have any analysis of these patients who dropped-out of the study before they exited ? I.e. did they have results significantly different from the others ?

Minor essential revisions

9. Please provide a detailed description of the management of the brace treatment, i.e. hours of bracing, evolution of these hours, etc
10. Please, state strength and limits of your paper in the discussion section

Discretionary revisions
11. I suggest to avoid sub-titles in section 2 of results

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests