Reviewer's report

Title: Supine to Standing Cobb Angle Change in Idiopathic Scoliosis: The Effect of Endplate Pre-selection

Version: 1 Date: 15 August 2014

Reviewer: Rene Marten Castelein

Reviewer's report:

Comments:
- 1. Minor essential; Result of this study could be affected by selection bias, since only AIS patients with Lenke 1 curves that underwent anterior thoracoscopic surgical correction were included. Moreover, they report on a heterogeneity of skeletal majority; Risser’s stage 0, as well as 5 were included. This should be added to the discussion.

- 2. Minor essential; In a paragraph in the discussion section (page 12, line 256) the authors describe potential differences between ‘Cobb change by fulcrum bending’ and ‘Cobb change by patient positioning’ as measurements for curve flexibility. The potential differences between the effect of direct loading on the apex (fulcrum) and gravitational forces (supine vs upright) on the sagittal and axial deformity in AIS, and consequent Cobb changes in the coronal plane, however, should also be added to the discussion.

- 3. Minor essential; Page 12, line 257 “Centre” should be replaced by center

- 4. Minor essential; a graph on the correlation between standing and supine Cobb angles, with and without selection of endplates, is lacking in the manuscript.

- 5. Minor essential; in figure 2, mean supine to standing Cobb change is shown as ordinal data in a histogram. Since the effect of endplate preselection on the difference in Cobb angle between upright and supine positioning of the patients is the primary aim of the study, fig 2 is better represented by a scatterplot showing the continuous standing Cobb angles versus supine Cobb angles, with and without preselection. I suggest the authors to consider this.

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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: No conflict of interest