Reviewer's report

**Title:** Real Time Noninvasive Assessment of External Trunk Geometry during Surgical Correction of Adolescent Idiopathic Scoliosis.

**Version:** 1  **Date:** 13 December 2008

**Reviewer:** Toru Maruyama

**Reviewer's report:**

Major Compulsory Revisions

This is an interesting study.

The authors show that they can measure trunk deformities during surgery. However, to prove the clinical relevance, it is necessary to indicate how their measurements during surgery can accurately predict postoperative residual deformity or imbalance such as rib hump, shoulder imbalance, coronal and sagittal trunk imbalance in the standing (or sitting) position. For this purpose, comparisons between the measurements during surgery and postoperative measurements are necessary.

I think this is a preliminary study and such validations may be the next step for the authors.

Could the authors add this point to the discussion?

Please keep style as shown on the website, "Instruction for Scoliosis authors". Title page, abstract section, competing interests, authors' contributions and figure legends are necessary.

Page 3, line 13 and 14: superior posterior iliac spine – iliac crest?

Page 4, line 15: RMS – root mean square?

Page 7, line 16: Table 2 – Table 1?

Figure 6(B): What is the meaning of the numbers? Numbers in the figure 1 and figure 7 are not coincided.

Table 1: For the double curve, Cobb angle of the both curves should be described. Moreover, from the clinical standpoint, level of the curve and area of instrumentation should be added.

Table 2: Please add units. mm?

Page 12, line 14: Eurospine – when and where?

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

**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.

Toru Maruyama