Reviewer's report

Title: Evaluation of coronal shift as an indicator of neuroaxial abnormalities in adolescent idiopathic scoliosis: A prospective study.

Version: 1 Date: 13 April 2014

Reviewer: Federico Canavese

Reviewer's report:

Interesting paper.
I would recommend revision to improve the quality of the final manuscript.

Major Compulsory Revisions

Who did perform statistical analysis? I feel power of study not enough to support conclusions. Can authors clarify this point?


Authors did not specify if patients with left thoracic prominence (thoracic scoliosis) had higher incidence of neuroaxial abnormalities. Left thoracic prominence is a red flag for neuroaxial abnormalities. Can authors comment on that?

What about pain?

What about gender? Some colleagues advocate MRI in male pts with AIS. Did authors assessed gender influence on neuroaxial abnormalities/coronal shift? Please comment on that.

Authors should better clarify their « spine protocol ». Please revise.

Results. Authors did classify scoliosis according to Lenke’s and King’s classifications. However they are not precise enough in presenting their results. They should list all cases according to Lenke’s and King’s classifications (percentages into brackets). A Table presenting those results should be added. Please revise.

Please define clearly coronal imbalance in methods.

Did authors identify any correlation between coronal shift-curve type-neuroaxial abnormalities? In other words, some curves – due to their topography - may have worse coronal shift but lower incidence of neuroaxial abnormalities. Can authors comment on that? Please add your comments in Discussion.

Does location of the curve influence coronal shift? Is this a byas of selection? Please comment on that (in Discussion).
Any association between direction of coronal shift (Left v/s Right) and incidence of neuraxial abnormalities?

How authors can be sure that positioning of the patients during radiographs is reproducible? Please clarify. Position of the patients during radiographs must be described.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare I have no competing interests