Reviewer's report

Title: Comparison of Trunk and Spine Deformity in Adolescent Idiopathic Scoliosis

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Reviewer: Theodoros B Grivas

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This is a useful article, even though it partially study a correlation that is previously assessed in other publications.

The authors conclude that “Trunk and spine thoracic and thoracolumbar transverse plane deformity are correlated, as are trunk transverse plane and spine coronal plane deformity”.

The Mean age of the study group was 14.9 years ± 2.6 (11-19). For similar studies it is better to use not mean but median age.

A major limitation of this submission is that it ignores some recent knowledge on the issue. It was reported that in girls with idiopathic scoliosis, growth has a significant effect in the correlation between the thoracic and spinal deformity. In younger children, the concordance of surface and spinal deformity is weak and becomes stronger as the children grow. Therefore, in younger children with surface/trunk asymmetry, the prediction of the spinal deformity alone from the surface topography is inaccurate. This knowledge relating to age should be taken into consideration when assessing spinal deformity from surface measurements, and correlating surface and radiological readings, see:


Therefore the authors in their conclusion must take in consideration the age of the assessed child when they correlate the transverse plane with the frontal plane deformity especial in less severe idiopathic scoliosis, and this must be noted in their discussion.

It would be also very useful to check the correlation of these two parameters in younger children than 13 years and in the older than 14 years of age, among the total group.

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

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 that I have no competing interests'