Reviewer's report

Title: A shallow chest correlates with right thoracic curvature in the normal spine: Features resembling those observed in structural scoliosis

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Reviewer: Manabu Ito

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Major Compulsory Revisions

This is an interesting study which tries to find out a causative factor of development of right thoracic adolescent idiopathic scoliosis. The authors hypothesized that rib cage deformities and the location of the aorta would relate to the progression of curves in right thoracic scoliosis in AIS patients. The question is unique and worth conducting research studies. Though the question is clinically relevant, this reviewer has some fundamental questions to the authors.

1. The patients who were enrolled in this study might be those who had visited the authors' hospital to take chest radiographs and CT scan for investigating other diseases. They were not patients with any sort of spinal deformity. If so, how can the authors conclude that such small curves have some possibility to progress in the future? Considering measurement errors of Cobb angles on AP chest x-ray films, 3 degrees of scoliosis curve on average must be within measurement errors.

2. More precise backgrounds of the patients should be documented in the manuscript. These are not normal subjects and visited their hospital for other clinical purposes.

3. The age range of the patients was 20 to 29 years. As well as their spinal deformity is too small to define as a true scoliosis, they are already mature so that the possibility of their curve progression is very slim.

The research question that this study has focused is very unique and of clinical interest. However, it is unfortunate to say that the results do not reach the level of scientific proof or evidence. This reviewer would like to leave the final decision to the other reviewers and the editor-in-chief.

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

Quality of written English: Needs some language corrections before being published

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'