Reviewer's report

Title: Increased Rod Stiffness Improves the Degree of Deformity Correction by Segmental Pedicle Screw Fixation in Adolescent Idiopathic Scoliosis

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Reviewer: Wai Yuen Cheung

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There are some limitations in this study:

1) The small sample size especially in the group 1 which is further subdivided to first and second 17 cases making the t-test for statistical analysis rather meaningless. There is no power analysis to address the issue that this study may not be able to detect the difference in view of the small sample size.

2) We are not sure about the patients in the four groups are comparable in terms of curve types and flexibility.

3) The amount of deformity correction in scoliosis surgery is multi-factorial. As mentioned in the discussin part, "cumulative experience, improvement in surgical techniques including the DVR, and a more frequent use of posterior release as well as a more liberal use of in situ bending of the concave rod prior to the introduction of the stabilising rod on the convexity could possibly might have contributed to successively improved correction in the remaining periods of the study. The authors did not take these factors into consideration in the study.

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.