Reviewer's report

Title: Perioperative complications after surgical treatment in degenerative adult de novo scoliosis

Version: 0 Date: 11 Jun 2017

Reviewer: Dominik Baschera

Reviewer's report:

Thank you for the opportunity to review this manuscript about the important problem of adult de novo scoliosis. This paper reports very high complication rate after lumbar correction spondylodesis.

Introduction: line19-28 Despite...: This whole text should be in one paragraph at the end of the introduction part. "Despite previous reports..." and "the current situation in the literature" are basically describing the same thing. Please try to avoid redundancies and try to be more concise in general.

- What was the hypothesis at this point?

Methods:

-1.1 How did you search/identify patients who had DAD scoliosis. Please describe the actual method of how you got the the actual number of patients

-1.6: how did you define/search for correction spondylodesis in your retrospective analysis.

-1.7: previously is obsolete as you already wrote prior to surgery

-1.10: This sentence, "If symptoms...." is really confusing. Was it a retrospective study or did you recruit the patients prospectively? Was it a just general consent for the data usage?

Pg5. 1.11: Why the cut-off of 30days for early vs. late complications?

- What were the imaging techniques used to check the accuracy of screw insertion? And when were they used?)
Results:

- 1.24 only .7% had received fusion surgery beyond this levels. Which ones? Just S1 or also Iliac screws? Up to which thoracic level?

- pg. 7 l. 9.: An average hospital stay of 21.92 days appears to be really long, even for multisegment fusion surgery. Why was that? Due to complications or general morbidity of the patients? Did they go tho a rehabilitation facility postoperatively?

- l. 12: The authors report a rate of postoperative paresis of about 15% which seems rather high. What were the intraoperative findings (operation notes: nerve damage, dural tear, screw misplacement in the foramen?) in those patients? Was it mainly in re-operated segments?

- pg. 8: The author discuss here already quite a few of their results which clearly belongs into the discussion section at the end. please restructure

pg. 8. l.10: Here I think one of the main limitations of the study appears. In my opinion it is more important to know whether complications were transient or permanent

l. 17: 8 patients with adjacent level failure within 30 days appear a very high rate of almost 9%. Please describe more thoroughly what type of adjacent levele failure and how often. You could even consider adding a table with more detailed information on the operations

Discussion

1.6: replace bares by bears

1.24 :After discussion of TLIF associated complications I would suggest you also discuss ventral techniques, as your patients consist of a mixed population
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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