Author’s response to reviews

Title: The fate of thoracolumbar surgeries in patients with Parkinson’s disease, and analysis of risk factors for revision surgeries

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The fate of thoracolumbar surgeries in patients with Parkinson’s disease, and analysis of risk factors for revision surgeries

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BMC Musculoskeletal Disorders

Dear editors and reviewers

We appreciate you and the Reviewers giving us the opportunity to revise our article for resubmission to The Spine Journal. Your constructive comments have been helpful to us. We have incorporated all of these suggestions by either directly making the changes or editing the text to address any concerns. Our following response to these comments deals with each issue raised point-by-point.

Editor Comments:

1) Please include the email addresses of all authors on the title page.

Reply
We added all authors’ addresses on the title page

2) The order of authors entered on our submission system is different to the order in the manuscript. Please ensure that both have the correct order.

Reply

We corrected the order of authors

3) Rename Introduction to Background.

Reply

We corrected it.

4) Rename Materials and Methods to Methods.

Reply

We corrected it

5) Please represent authors' names using their full initials, not their full name, in the Authors’ Contributions section. If there are any duplicated initials, please differentiate them to make it clear that the initials refer to separate authors.

Reply

We represented authors’ names using their full initials in the Authors’ Contributions section.

6) Please include a statement in the Authors' contributions section to the effect that all authors have read and approved the manuscript, and ensure that this is the case.

Reply

We added this statement in the revised manuscript. (please see page 15, line 12-15)
7) Please remove the figure titles (Figure 1, 2 etc.) embedded within the figures and re-upload the corrected versions. Please upload each Figure and Table individually, as separate files.

Reply
The figure titles embedded within the figures were removed.
Each Figure and Table was uploaded individually.

8) Unfortunately, there are some minor language issues throughout the manuscript. Please ensure that you have thoroughly checked your manuscript for any other language errors. We recommend that you ask a native English speaking colleague to help you copy edit the paper. If this is not possible, you may need to use a professional language editing service. Use of an editing service is neither a requirement nor a guarantee of acceptance for publication.

Reply
An English language editor proofread the revised manuscript for organization and grammar.

Reviewer reports:

Fabio Galbusera (Reviewer 1): The paper presents the largest monocentric study evaluating complications and revisions in patients with Parkinson disease subjected to spine surgery. Although retrospective, this work presents a relevant set of data which can have an important clinical impact, taking into account that the available literature about this topic is rather scarce and most studies refer to small cohorts of patients. I can therefore recommend publication after revision.

Specific comments:

- in general, I would recommend a professional language revision by a native English speaker. Although the quality of the English is not bad, there are several mistakes and parts which are not really fluent. I especially had some problems in reading the Discussion.

Reply
An English language editor proofread the revised manuscript for organization and grammar.
- Abstract: coherently with most literature, I suggest to use "pelvic tilt" instead of "pelvic tilting". Pelvic incidence is indicated as "PT": this should be corrected. Please avoid writing "P=0.000" but use "P<0.001" instead.

Reply

We followed your suggestions to correct these mistakes. (please see Abstract part, page 2, line 34, 48)

- page 6: how was the fusion status evaluated? With the Brantigan-Steffee scale?

Reply

The fusion rate was not compared in this study, we did not use any scale to evaluate fusion status.

In the revised version, we deleted “the fusion status”.

- page 7: the description of the novel "spino-pelvic realignment achievement" is quite unclear. I suggest to introduce a table, or figure, to improve the clarity of the novel score.

Reply

In the revised manuscript, we added a Table (new Table 1) to describe the scale of "spino-pelvic realignment achievement".

- page 7: it appears that both non-parametric (Fisher's exact test) and parametric (Student's test) statistics have been used. Why? Was the normality of the samples tested?

Reply

We have tested all continuous variables of these two groups for their normality, and the data showed that these continuous variables were distributed normally, except “blood loss” variable.

Then we used Mann-Whitney U test (non-parametric) to evaluate the “blood loss” variable, the data is similar to that of Student’s test. So we do not change our data in the revised manuscript.
- page 7: please report also the standard deviations for patient's age and follow-up period. If the distributions are no-normal, median and range should be reported instead.

Reply

We added standard deviations for patients’ age and follow-up period. (please see Results part, page 7, line 53-55)

Hideyuki Arima (Reviewer 2): I read with great interest the study entitled "The fate of thoracolumbar surgeries in patients with Parkinson's disease, and analysis of risk factors for revision surgeries". In this investigation on 66 Parkinson's disease patients underwent instrumented spine surgeries, the authors examined risk factors leading to revision surgery, and to develop surgical strategy

The paper is well written and the points that it makes are clear.

However, I think that it is better to clarify what the pathology for the instrumented surgery was. Was it a surgery for posture dysfunction, was it a surgery for stenosis?

When analyzing all the patient with different spine pathology, the issue would be blurred.

Overall, its information will be useful to the readers of Journal "BMC Musculoskeletal Disorders”.

Reply

Thanks for your comments and suggestions.

We added the pathology for the instrumented surgery. (please see Methods part, page 5, line 22-29)

The main reason for surgery in these patients was spinal stenosis with instability, not for posture dysfunction.

Finally, thanks the reviewers again. We feel that by taking your suggestions, we are able to improve this article strongly.