Author’s response to reviews

Title: Morphometric characteristics of the thoracolumbar and lumbar vertebrae in the Greek population: a computed tomography-based study on nine hundred vertebrae. “Hellenic Spine Society (HSS) 2017 Award Winner”

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Answers to Reviewer’s comments:

Reviewer #1: Thank you for addressing most of questions and comments in detail. I have made some minor comments for the authors to address.

Abstract

1) In the conclusion section, the fourth line, it should be male and female populations.

Thank you. We corrected it
2) The last sentences can be written as, "However, in the thoracolumbar region, the pedicles of T9 and T10 may hardly accommodate a 4.00mm pedicle screw given the narrow inner cancellous pedicle width. Importantly, the vertebra and pedicle dimensions measured in the current study can be used to guide the selection of transpedicular screws in the Greek population and to guide further research".

Thank you. We have changed it as above.

3) Please state that Mann-Whitney U tests were conducted to compare the differences in various morphometric characteristics between sexes.

Thank you. We have stated it.

4) The second and third sentences in conclusion should belong to the results section.

Thank you. We have added these sentences to the results.

5) Please highlight all the changes in a different color to facilitate the reviewers to see the changes.

Thank you. We have done it.

Introduction

1) Please provide reasons for choosing T9 to L5 for measurements in the manuscript. Although you have provided your reason in the response to the reviewer, it is necessary to explain this to your readers because they don't have a chance to ask this question.

We have added the following 2 sentences: “Those individuals where picked from a pool of patients suffering vascular problems (mainly aortic aneurysmal disease) and had CT-angiography (mainly for abdominal aortic issues). We choose the T9 through L5 vertebrae in order to achieve homogeneity of the sample (visual vertebrae in all patients), since most of the CT scans didn’t involve the mid and upper thoracic vertebrae.”

Materials and Methods
1) Please specify the qualification of the 2 persons in the manuscript (not just answer my question).

Thank you. Specified in the revised submission.

2) There are 3 types of ICC, please clarify which type of ICC was used to test the inter-rater reliability

Dear Reviewer. Thank you for your comment. In our paper, we used ICC=MODEL(MIXED), TYPE(CONSISTENCY) with CIN=95 and TESTVAL=0, (IBM SPSS ver. 22)

Results

1) What is the meaning of a negative angle for the angle of the endplate and the horizontal line in the sagittal plane?

Thank you. A negative angle for the angle of the endplate and the horizontal line in the sagittal plane means that the vertebra angled caudally.

2) Thank you for summarizing the findings succinctly. Please put the relevant figure number in the relevant location in the text. It will facilitate readers to find the corresponding figures. Please don't mix up tables and figures. They are two different things. Tables are in a tabulated format, while figures can be graphs and pictures. Since you use figures to represent trends, you should put those figures right after the relevant sentences. Please don't put the label of all figures at the second last paragraph. It is hard for readers to find the figures by themselves.

Dear Reviewer. Thank you for your comments. There is no worry about this because the BMC production team will put the figures and the Tables in the proper place of the article when they will produce the HTML and the PDF of the article before the publication. Actually the figures are numbers in the text properly. See the page Method and Material section of the PDF , lines 47-57.

Here it seems that there is a misunderstanding. We do not mix the tables and the figures. We downloaded separately the figures and the tables in the system. However, for the convenience of the readers in each graph additionally to each table we added the relevant figure.

Discussion
1) Page 13, line 47, "Based on the analysis of the present study in Greek the population…". It should be ".. in the Greek population,…".

Thank you. It is corrected now

2) Please highlight that future studies should also establish the morphometric characteristics of the thoracic regions in the Greek population.

Thank you. We have highlighted

For Tables 1 to 8 should be label as Figures 6 to 13. The authors should also provide the title for the tables in the supplementary materials.

Thank you. There is no worry about this issue as well. The title for the tables in the supplementary materials were provided earlier in our first submission with the main text and it is in the PDF before the references. The BMC production team will also look after this and sort it out as well accordingly.