Reviewer's report

Title: A Comparison of Lumbar Transverse Pedicle Angles between Ethnic Groups: A Retrospective Review

Version: 0 Date: 14 Dec 2018

Reviewer: Anil Kumar

Reviewer's report:

Article overall is ok but needs some major revisions.

TITLE

I think the title should mention 'LUMBAR transverse pedicle angles'.

ABSTRACT- Results

Statistical p value is <0.05- please correct it here and other places in the manuscript.

KEYWORDS

Include CT

BACKGROUND

last line in first paragraph here- 'with the increasing commonality... of spinal surgery'- please reframe the sentence, for eg. 'commonality' can be replaced by 'use' and 'patient variation' by 'patient variables'.

In second paragraph here, while describing the TPA angle, please add (figure 1) at the end of sentence. Last line of this paragraph (page 4)- 'Thus, it is of maximal.... that of transverse pedicel angle' can be removed, as I think this is repetitive.

There is a study published in 2012 that studied ethnic differences in pedicle dimension of cervical spine. I think this should be mentioned here.

'Ethnic differences in pedicle and bony spinal canal dimensions calculated from computed tomography of the cervical spine: a review of the English-language literature.'

I also found a dissertation submitted to University of Johannesburg in 2018 that describes the morphology of thoracic and lumbar pedicles in different ethnic groups. Please mention it in the discussion and references.

'The morphometric description of the thoracic and lumbar vertebral pedicles in European, African and Mixed populations of South Africa.'

http://wiredspace.wits.ac.za/bitstream/handle/10539/25258/Final%20corrections%20%283%29%20%281%29.pdf?sequence=1&isAllowed=y

METHODS-

'TPA data was obtained by single observer and verified by 2 more senior physicians'- please explain this better- how was this done?. How was interobserver variability calculated and interpreted?

Height and weight- as reported by patient ? what was the age range of these patients?

RESULTS

Page 7- first paragraph- 'increase in the TPA was appreciated with……in figure 1.' Please correct figure 1 to figure 2.

Please mention the exact p values found at L2 and L3 levels. Also, please provide a table or figure that includes data and p values found at all levels.

Also provide the data in a concise form in a table with regards to age, height , weight and gender.

DISCUSSION

Please correct the p values to <0.05.

Another limitation of the study I think is that there are only 12 white patients, which probably is significantly lower than others.

LIST of ABBREVIATIONS

Include SD and SEM

FIGURE LEGEND

Table 1 description can be removed from here, as it has been described earlier.
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.

Yes

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

Yes

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 recommend additional statistical review

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