Reviewer’s report

Title: The Posterior-Anterior-flexed View is essential for the Evaluation of Valgus Osteoarthritis. A prospective study on 134 valgus knees

Version: 0 Date: 24 Oct 2018

Reviewer: Kent Carlson

Reviewer's report:

This manuscript is a statistical evaluation of the effectiveness of the radiographic PA-flexed view compared to the commonly used AP view to evaluate the degree of OA in valgus knees. Using radiographs of 134 valgus knees assessed prior to TKA, the authors present convincing statistical evidence that the PA-flexed view more accurately captures the extent of lateral compartment arthritis for patients with up to 15 degrees of valgus deformity.

Overall, this is interesting work, and a compelling case is made for the use of the PA-flexed view in valgus knees. Before publication, however, I strongly recommend having someone who is a native English-speaker read through this for general grammar and typos. In addition, I have several minor comments below that should be addressed:

In several places in the manuscript, you use the word 'extend' when you mean 'extent'. Please correct.

P.4, line 90: change 'determinate' to 'determined'

P.6, line 125: is it 68 knees with mild to moderate OA on AP view? Fig. 1 says 66.

P.6, lines 128 - 130: you are talking about 53 knees, and state this is 62.4%. 62.4% of what? 53 is 62.4% of 85—so what subgroup does this 85 represent? You refer to Fig. 1, but I don't see how the figure is related to this sentence. Please clarify.

The figure legend for Fig. 1 does not describe Fig. 1. Please correct.

The figure legend for Fig. 3 says the figure shows difference in median, but the y-axis label on the plot says difference in mean. Please correct.
The figure legend for Fig. 4 has a typo ('grey filed' instead of 'grey field'), and a repeated phrase "of knees of knees". Please correct.

You make reference to Figs. 1 - 4, but you don't actually describe these results in the Results section. You list a few results in the figure captions, but you need to write a few paragraphs to present your results to readers!

P.7, line 154: typo - change 'imagining' to 'imaging'

P.7, line 164: typo - change 'access' to 'assess'

P.8, line 179: you reference Fig. 4, but it should be Fig. 5

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**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 am able to assess the statistics

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

Needs some language corrections before being published
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