Reviewer's report

Title: Can dental CT predict the quality of interradicular bone?

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Reviewer: Asbjorn Jokstad

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The objective as I understand of this study is to correlate Hounsfield units measured on cbCTs with microhardness of cortical bone in a swine model. The cortical bone thickness is also measured on the CT and correlated with both HU and microhardness, although it’s not entirely clear to the reader why one would expect such correlation.

The paper is well written and the findings reflect the study objectives that are clearly stated. There is some room for improvement. Suggestions for minor revisions are:

1. Given the stated objective the title appears to me to be an oversell by including “quality”. A better title in my opinion would be “Can dental CT predict the hardness of interradicular cortical bone. (the term “cortical” appears in the title on the abstract page, but not on the authors page, but I believe it should be included).

2. For the same reason I believe the conclusion should be “relying on HU values as a predictor of cortical bone hardness should be considered with caution.”

3. The many comparisons in the results section included percentages instead of the underlying true values. A consistent use of differences with confidence intervals would certainly strengthen the manuscript and improve reader friendliness. The percentages can of course be also include, but this is I imagine an editorial policy decision.

4. The box-plots legends should include a description of which percentiles are shown, since this tends to vary slightly.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests'