Reviewer’s report

Title: Annual Alveolar Bone Loss in Older Adults Taking Oral Bisphosphonate: A Retrospective Cohort Study

Version: 1 Date: 17 Aug 2019

Reviewer: Fabian Cieplik

Reviewer's report:

The quality of the manuscript has improved considerably due to the revisions made. However, there are still a few points that need to be revised before this paper may be ready for publication, as follows:

1) My point: "The sample size of 26 patients in each group seems to be quite small for a case-control study. Furthermore, I am a bit surprised that there were only 30 patients with medical history of BIS-intake in the electronic health record of the Harvard Dental Center between 2008 and 2015?!

Answer of the authors: "Although we are celebrating 150 years, we are a small school with about 250 students only. In addition, we want bitewings for patients with multiple visits (one year of interval) which ended to very few patients. For this reason, 2 years was OK with about 30 patients with completed medical history. This number dropped severely if we go to 3 years or more."

I understand that point. However, this is a clear drawback of this study and needs extensive discussion in the discussion section.

2) My point: "Table 1: Instead of mean age, I would suggest to state median age as well as 25/75% percentiles. It is not clear to me, why a standard error is given for percentage of females or percentage of mild, moderate or severe periodontitis? This seems not be necessary?! (also applicable to the other tables)"

Answer of the authors: "Yes true. It was a mistake and we have removed the females column and SE. For the mean or median, it will not change anything since it is a match data on age and gender"
Mean values are only appropriate for normally-distributed data. Your data probably is not strictly normally-distributed wherefore medians and neighboring quartiles (25/75% percentiles) are the correct way to depict these data. Therefore, please change mean values to medians, show 25/75% percentiles and omit the SE for all tables.

3) My point: "Figure 2: is this figure really necessary?! Furthermore, it seems implausible to me that the measured values are only at baseline (timepoint "0") and after 2 years (timepoint "2") because (as far as I understood from the materials & methods section, In. 105) patients were included when they had radiographs with an at least one-year interval. Therefore, there may be several values between baseline and 2 years?"

Answer of the authors: "We thought for visual comparison this figure will be necessary because it showed there is increasing in bone loss among bisphosphonate group until become comparable to non bisphosphonate group regarding bone loss.

Yes, this is true. However, we think what will be matter is the long term effect of bisphosphonate which it turned to be almost comparable to non bisphosphonate group regarding bone loss as we can see in the confidence interval."

This figure is absolutely not appropriate as the data points given are not correct and just given for two time points ("0" and "2"), as discussed above. So, please change this figure accordingly or remove it from the manuscript.

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?
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Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?  
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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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