Reviewer's report

Title: Number of natural teeth, denture use and mortality in Chinese elderly: A population-based prospective cohort study

Version: 0 Date: 28 Jun 2019

Reviewer: Takamasa Komiyama

Reviewer's report:

Thank you for giving me the opportunity to read paper titled "Number of natural teeth, denture use and mortality in Chinese older adults: A population-based prospective cohort study." This paper is very interesting and important research. However, this paper addresses a serious concern, and the discussion is insufficient to make it worth considering for publication.

Major comment

1. There is a difference of more than 20 years between the median age of participants with edentulism and that of those with more than 20 teeth. Therefore, I am concerned that these research results show a relationship not between the number of teeth and mortality but between age and mortality, and likewise with the results for denture use. Although the authors tried to solve this problem, which is stratified to age, it is doubtful that this cohort is suitable for researching the relationship between number of teeth, denture use, and mortality. Indeed, in Supplemental Table 2, effect of denture use on mortality is almost the same among different groups. Generally, the effect of denture use on mortality in an edentulous group is higher than that in the group of participants with more than 20 teeth.

Specific comments

1. In the Introduction, the authors mentioned, "Lastly, tooth loss…." I can't find how the authors solved this problem of previous studies in the discussion section.

2. In this research, why did the authors calculate NNT? The authors need to discuss the obtained NNT.

3. The authors used time-dependent Cox proportional analyses. The authors should discuss the time-dependent effect of the relationship between tooth loss, denture use, and mortality.

4. The authors should discuss the results of sensitivity analysis.

5. The authors concluded that having fewer than 25 teeth was associated with an increased risk of mortality. The authors should discuss the validity of this score and mention the clinical interpretation of this result.
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.

No

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

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