Author’s response to reviews

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

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Version: 2 Date: 19 Sep 2019

Author’s response to reviews:

Dear Editors,

Thank you very much for your comment on our manuscript, titled "Number of natural teeth, denture use and mortality in Chinese older adults: A population-based prospective cohort study" (OHEA-D-19-00324R1). We have revised the manuscript according to your comment and a point-to-point response to the comment can be find bellow. Please contact us for any problems. Thank you.

Best regards.
Jinqiu Yuan.

Editor Comments:
Thank you for revising your manuscript. Please see the comments for your revised manuscript.
Response: Thank you.
Reviewer reports:

Takafumi Yamamoto (Reviewer 1): Comment 1
The meaning of the following sentences is unclear. (P11 Line11-17).
The authors need to describe more clearly the mechanism of the sex difference of the present results.
Previous studies have shown that men are less social participation than women. If wearing dentures can encourage social participation, it is expected that men will benefit even more from denture placement.

Response: Thank you very much for the comment. We revised the possible mechanism of the sex difference as follows:
“It has been shown that men tend to have a poorer nutritional status than women, while wearing dentures could effectively improve nutrition; Therefore men are likely to have more benefits from denture use. Additionally, previous studies have shown that men are less active in social participation than women, while wearing dentures can encourage social participation; Thus it is expected that men will benefit more from denture placement.”

Takamasa Komiyama, Ph.D. (Reviewer 2): Please include all comments for the authors in this box rather than uploading your report as an attachment. Please only upload as attachments annotated versions of manuscripts, graphs, supporting materials or other aspects of your report which cannot be included in a text format.
Please overwrite this text when adding your comments to the authors.

Although the authors responded to our comments precisely in some points, some concern has still remained.

As mentioned formerly, age is considered as a serious confounding factor between tooth loss and mortality. I had understood that the authors tried to deal with this problem using sub-group analyses stratified age group. However, it was insufficient to deal with this confounding bias, since the age range used in this subgroup analysis is too broad. The authors should re-analyze in sub-group analyses which divided for a narrow range of age groups, or using other methods.

Response: Thank you very much for the comment. We undertake subgroup analysis by age at a narrow range as suggested. We divided the age in to 5 groups now at a 10-year interval: (65-74, 75-84, 85-94, 95+). The result did not show major change as compared with previous analysis.

The authors need to mention the results of Table 3 in the discussion section.

Response: Thank you. We discussed the table 3 as follows:
“Denture use was associated with a decreased risk of all-cause mortality that tended to wane with age. The absolute benefit of wearing dentures was large and varied with age. In order to prevent one death in five years, approximately 6 to 7 older people aged 56-79 need to ware dentures, compared with 37 to 42 people for those aged 95 and over.”