**Reviewer's report**

**Title:** The Candida species that are important for the development of atrophic glossitis in xerostomia patients

**Version:** 1  **Date:** 15 May 2017

**Reviewer:** Mitsuo Kishi

**Reviewer's report:**

The authors have addressed my concerns honestly. However I have a few remaining points for the authors' to consider.

1. The logic through this paper may be summarized as follows:

1) Amounts of C. albicans, C. glabrata and low saliva flows were associated with presence of atrophic glossitis as shown in Table 3.

2) Denture wearing is also associated with presence of atrophic glossitis as shown in Table 4.

3) While, those associated factors were confounded in each other as shown in Table 5.

4) To adjust the confounding, multiple logistic regression analysis was performed and consequently, the most significant factor was amount of C. albicans as shown in Table 6.

5) Therefore, C. albicans should be specially considered as a treatment target for Candida-related atrophic glossitis.

Thus, results shown in figures 2-4 are additional and different from the context above. Authors should describe why they carried out such the analyses before the results presentation section (p.9, 2nd line from the last line). In addition, analyses of relationships of amounts of total Candida and C. glabrata might not be needed, since only C. albicans was the significant in the logistic regression analysis.

2. Revision concerning two-way ANOVA is not sufficient. Two-way ANOVA is applicable for parametric variables. Are amounts of Candida parametric?
In addition, the figure 2-4 do not show the differences by levels. These indicate differences between 4 groups. Please consider the way of statistical analyses and presentations.

3. Table 5
Avoiding readers' puzzling, SSFR line should be added below RSFR line even if the line becomes blank.

4. Table 6
Gender and Denture may be dummy variables. Please add note the details such as Gender; male: 1, female: 0, Denture; denture wearer: 1, no denture: 0.

**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

**Quality of written English**
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Acceptable
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