Reviewer’s report

Title: Apical Periodontitis: preliminary assessment of microbiota by 16S rRNA high throughput amplicon target sequencing.

Version: 0 Date: 18 Dec 2017

Reviewer: Kiyonobu Honma

Reviewer's report:

General comment

The authors attempted to reveal diversity of microbiome at two different kind of apical periodontitis, periapical granulomas and radicular cysts by pyro-sequence analysis. The authors found similar kind of anaerobe and facultative anaerobe with culture based study. I think the aim of this study is important to expand understanding about microbiome environment at apical periodontitis. However this manuscript needs improvement for data presentation to recommend for the publication.

Specific comment
Please add page number to the manuscript.
Please introduce all abbreviation if it is shown first time in the manuscript.

* Materials and Methods,

Line 11 please introduce about "OPT".

* DNA analysis by pyrosequencing

How did the authors prepare samples for DNA extraction?
Please add more detail about DNA extraction procedure.
Please describe about ANOSIM and ADONIS analysis what the authors mentioned at results section. If the authors can present ANOSIM and ADONIS data as table, it make the manuscript better.

* Results,
I think make a table of the species that was found at each group with OTUs data to summarize the data is helpful.

* Page?, L9-10, "0.2% in at least two samples. [Fig.1]"
Please mention sample names.

* Page?, L1-2
"species-level taxonomic assignment and significant correlations at FDR <0.05 (Fig.4).

* What is the "FDR" standing for?
Can I understand "Fig.4" as "Fig 3"?

* Discussion,
What is the authors idea about PGs samples shows less diversity than RCs sample?

* Fig 1
I think the authors can make a table to summarize the data and the figure with plot data should be placed as a supplement data. The figure is including too many plots and each plot is too small to see the data.

* Fig. 3
The figure also hard to understand. Please shows as a table.

* Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.
No
Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.
Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
Unable to assess

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 recommend additional statistical review

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Please indicate the quality of language in the manuscript:
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