

WJSC revised ver.

Dear Editor and reviewers,

Thank you very much for giving me an opportunity to revise our manuscript. I am very grateful to yours and other reviewers' critical comments and thoughtful suggestions. The reviewer's comments were highly insightful and enabled me to greatly improve the quality of my manuscript. I have revised the manuscript, according to the comments and suggestions of reviewers, and responded, point by point to the comments. The specific changes made in the revised version are indicated in Red.

Reviewer #1

Specific Comments to Authors: The author listed two approaches: reprogrammed cells and iPS cells, which both need gene transfection. Whether these could be used in clinic, and the advantage and disadvantage needed to be added.

Answer: As the reviewer indicated, this is just the point. Now the iPS cell institute (CiRA, Center for iPS Cell Research and Application, Kyoto University) in Kyoto, Japan is preparing iPS cells with HLA homozygotes for allograft (Xu H, Cell Stem Cell, 2019). Thus I believe this development will make its clinical use possible in the near future. Meanwhile, the use of reprogramming cells has safety issues. So we need to solve them as a future task. Taken together, the advantage of periodontal treatment using periodontal ligament stem cells introduced in my manuscript is assumed to improve the patients' quality of life because of allowing to conserve the affected tooth over the long time, but the cost for iPS cell is probably high, which is supposed to be disadvantageous. So this has been described in the revised manuscript.

Reviewer #2

Maybe the figure legends can be more detailed. And there is a review introduces noncoding RNAs involved in the osteogenic differentiation of periodontal ligament stem cells published in the latest issue of WJSC. The author may be interested to read the newly published paper about PDLSCs.

Answer: As per the reviewer's indication, I have added figure legends. In addition, as per the reviewer's thoughtful suggestion, I have included the description in regard with ncRNA referring to the informative review by Qiu W et al. (2020), and also arranged the

illustration in Figure 1.

Editors

The authors did not provide original pictures. Please provide the original figure documents.

Answer: I attached a PPT file with revision.