Reviewer’s report

Title: Autotransplantation of mature impacted tooth to a fresh molar socket using a 3D replica and guided bone regeneration: two years retrospective case series

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Reviewer: Meenakshi Vishwanath

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Autotransplantation of mature impacted tooth to a fresh molar socket using a 3D replica and guided bone regeneration: a one year retrospective study
The authors of the manuscript are evaluating the survival and accuracy of autotransplanted mature third molar teeth to a fresh molar extraction socket using a 3D replica and GBR where necessary.
Though it is a retrospective study, the technique of autotransplantation needs to be recognized as an evidence-based alternative for the replacement of missing teeth. Therefore, I consider the topic is pertinent and current. However, I think there are some major issues in the overall rationale and objective of the study, which extends into the material and methods section. Though normally I would consider grammatical and typographical errors minor issues, they are so many in this particular manuscript that it is hard to infer the meaning of certain sentences. I urge the authors to thoroughly proof read the manuscript before resubmission.

Major issues:

1. Objective of the study: The author's main objective was to evaluate the performance of a fully mature third molar tooth that was autotransplanted to a fresh extraction socket of another molar tooth and do it with the aid of a 3D replica. I infer from the objective, that the main emphasis here is the use of the 3D replica to reduce the extra-oral time and obtain a better fit of the donor tooth.

Though, the protocol followed for the entire procedure is good and the follow-up assessments are also well done, considering the authors' main objective, I would have expected more information in the material and methods about:

a. What were the measurements made on the CBCT to determine the best candidate for the donor tooth? Image with the measurements.

b. Did they know beforehand the cases that might need GBR based on these measurements?

c. How was the CBCT sectioned in order to obtain the data to create the replica?
2. Guided Bone regeneration: The authors have mentioned evaluating GBR—specifically grafting with autogenous bone to fill the gap between the tooth and the prepared socket in the purpose of this study and have mentioned the procedure in the title. They have also stated in the introduction that ‘investigations of the clinical advantages and the success rate of this autotransplantation technique in association with association with GBR are still lacking’.

This would indicate to the reader that they are performing this procedure to highlight the clinical advantages and improvement of the success rate due to this technique along with the use of a 3D replica. Since they did not have control patients, they have been unable to highlight how this combination helped with the success rate. However, as the procedure was performed in 8 out of 10 patients, advantages and/or other clinical factors of using GBR could have been elaborated in the discussion section. In fact, in the discussion they have referenced an article suggesting that the success rate of using GBR in autotransplantation is consistent with the non GBR one.

Hence, what was the rationale or even advantages of GBR in this particular study that might help the readers in clinical practice?

Based on points 1 and 2 - The authors need to highlight the uniqueness of the article. Either based on the 3D replica technique or the addition of the GBR as there are other similar studies with follow-up periods that are longer in duration and or studies with a higher sample size:
https://www.joms.org/article/S0278-2391(19)31003-1/fulltext
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6252245/
https://bmcoralhealth.biomedcentral.com/articles/10.1186/s12903-017-0468-0

3. The entire manuscript needs to be thoroughly proofread. Use of words such as 'expect' instead of 'except' and several other such typographical and grammatical errors make the article incomprehensible in certain areas.

**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.

No

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

Yes
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.

Not relevant to this manuscript

Quality of written English
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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