

## **ROUND 1**

Dear editor and reviewers:

Thank you very much for your review and valuable suggestions. We are pleased to resubmit a revised version of our manuscript entitled “Modified membrane fixation technique in a severe continuous horizontal bone defect: A case report and literature review (Manuscript ID: 73263)” for re-consideration to publish in World Journal of Clinical Cases. After carefully read and thoroughly discussion of all comments and recommendations, we have replied to all comments raised by the three reviewers. Meanwhile we are convinced that all comments and recommendations are helpful and meaningful, and the necessary revision has helped us to make a significant improvement of this manuscript. Enclosed with this letter, please find our detailed responses as well as the pages with modifications that we have made. We sincerely thank you for your time and helping us with publishing a high-quality manuscript. We humbly hope that our revisions and careful responses have made the revised manuscript qualified for the final publication in World Journal of Clinical Cases.

Sincerely,

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**Reviewer #1:**

**Scientific Quality: Grade B (Very good)**

**Language Quality: Grade C (A great deal of language polishing)**

**Conclusion: Major revision**

**Specific Comments to Authors:** *Introduction: The authors write: Several membrane fixation techniques have been... of clinical challenges. This statement requires a reference.*

**Answer:** We appreciate and agreed reviewer's comment, some references [13-18] have been added in the revised manuscript.

*What does ABBM stand for? The authors have many abbreviations. They should do well to spell them out occasionally in the text.*

**Answer:** We thank the reviewer for this comment. The "anorganic bovine bone mineral" (ABBM) have been added in the revised manuscript, and the full name of other abbreviations has also been added to all words that first appear as abbreviations.

*Case Presentation: why write right upper incisor? It is misleading at first and unprofessional. Do they mean the central incisor or the lateral incisor? Why not write from the start 11, 12?*

**Answer:** Thank you very much for your nice advice. All the tooth positions have been restated using Federation Dentaire Internationale (FDI) Tooth Numbering System in the revised manuscript.

*The Case Summary does not follow the guideline in the CARE Checklist. For example, the chief complaint of the patient is not reported here. There is no evidence or statement the authors obtained informed consent from the patient. There is no follow-up report. Follow-up must last at least three years.*

**Answer:** Thank you very much for your professional comments. The revised Case Summary follow the guideline in the CARE Checklist. Chief complaint of the patient, informed consent from the patient and follow-up report have been added into the new manuscript. According to the reviewer's suggestion, we recently conducted a follow-up visit to the patient on February 21, 2022. The patient underwent bone grafting on August 1, 2019, the implants were placed on June 1, 2020, and the final restorations were inserted on December 8, 2020. So far, it has been 31 months follow-up after the bone graft surgery and 21 months follow-up after implant placed. Generally, bone resorption after bone graft often happens within 6 months postoperation and reach a relatively stable state after 6 months. Therefore, we believe

that the follow-up time is almost enough, and of course we will continue to follow up in the future.

*In my opinion. the treatment started too early for a patient suffering from chronic gingivitis. The authors should have made sure that the patient has disciplined himself in the maintenance of good oral hygiene before embarking on such an expensive and risky operation. This will last at least six months after the treatment of the chronic disease.*

**Answer:** We thank the reviewer for this comment and we'd like to explain this concern as follows. This young patient hoped to restore the missing teeth and complete all the treatments as soon as possible. Meanwhile, we performed dental cleaning and periodontal treatment before surgery, gave oral hygiene guidance to the patient, educated the patient the importance of maintaining oral hygiene.

*With all due respect to the authors, I find the English of this article awful - to be charitable. Reading it was really stressful, because of the style and the grammar of the English language, which leaves much to be desired. I suggest that the technical editor or the assistant editors should first of all read and correct the manuscript before sending it out to reviewers. In this current state, this paper is not fit for English speaking readership. I opine that he article is otherwise very good and useful to practitioners of dental surgery. However, it must be totally overhauled to improve the language and match the guidelines of your journal.*

**Answer:** Thanks for this insightful and constructive comment. In this revised manuscript, we focused on a number changes to the language writing specification, and the manuscript was editing by the language editing services. The English expression of this article has been greatly improved, which can meet the requirement of this reviewers and journal.

**Reviewer #2:**

**Scientific Quality: Grade E (Do not publish)**

**Language Quality: Grade B (Minor language polishing)**

**Conclusion: Rejection**

**Specific Comments to Authors:** *I did not see much novelty or uniqueness to this case report.*

**Answer:** Thanks. It's a great pity that the reviewer has not found the virtue of this fantastic article. We think the article is otherwise very good and useful to practitioners of dental surgery. The technique combined four pins and cross periosteal sutures is novel, feasible to maintain the space and stabilizes the graft and membranes in severe horizontal bone defect, practical and flexible in clinical application, provide an alternative over traditional methods to obtain better bone regeneration results. This technique is very useful in clinical practice. Of course, well-designed future clinical studies are mandatory to verify that the technique described here generates comparable and reproducible results, and we will continue to do in-depth research in the future. We believe it would be regrettable if this manuscript could not be published.

**Reviewer #3:**

**Scientific Quality: Grade B (Very good)**

**Language Quality: Grade C (A great deal of language polishing)**

**Conclusion: Minor revision**

**Specific Comments to Authors:** *Dear authors, congratulation for the great results you managed to achieve in this patient. The technique recommended however am sure is for selected cases only where in vertical bone is sufficient and only horizontal bone loss had occurred. For other severe defects block graft still remains the first choice,*

*however with that also this combined four pin and cross periosteal sutures might be of help. There are certain corrections that I would like you to improve on to further enhance the scientific quality of the manuscript. Introduction first para last line: 'average resorption dose' can be rewritten as 'average resorption rate' . Under the heading of physical examination I think we mention the general physical findings such as built, gait, external appearance or any abnormalities. The points mentioned under this heading can be written under 'oral examination' heading.*

**Answer:** First of all, we sincerely thank the reviewer for the affirmation of this article and thank you for your suggestions. The problems of English language expressions in the mentioned above have been revised in the revised manuscript. In addition, according to the submission format of the journal, the physical examination part is essential, so we added a some physical examination information, and at the same time added oral examination information in the revised manuscript.

*Other than this, you could also elaborate on part on when and how you took the periosteal release incision. The flap on lingual was reflected partially or full or not reflected.*

**Answer:** Thank you very much for your suggestions. We described in detail the surgical approach to periosteal relaxation incision: “A periosteal release incision was made 2–3 mm beneath the planned apical position of the graft material and membrane. Incremental incisions of 1 to 3 mm into the periosteum and submucosa were made perpendicular to the base of the inner surface of the flap. The flap on the palatal side was partially reflected and the buccal flap advancement was evaluated to determine if deeper incisions into the submucosa were needed to attain more advancement to make sure the soft tissue could be closed without any tension (Figure 3C).” Concurrently, this approach is consistent with the classical literature and considered to some degree as the gold standard.

*And at many places there is some 'spacing between the words' issue that can be corrected. Thank you*

**Answer:** Thanks, we are so sorry on this kind of mistakes and we carefully checked them in the revised manuscript.

## **6 EDITORIAL OFFICE'S COMMENTS**

*Authors must revise the manuscript according to the Editorial Office's comments and suggestions, which are listed below:*

### ***(1) Science editor:***

*The authors report a successful modified surgical approach that increases horizontal bone volume by guided bone regeneration (GBR) and PDMS combined with four corner pins are an effective way to maintain space and stabilize the graft and membranes in patients with severe continuous horizontal bone defects, which is very good and useful to practitioners of dental surgery. However, authors need to know that Signed Informed Consent Form(s) or Document(s) cannot be replaced by informed consent for surgery. The number of total references is few and a bit outdated, maybe a little more related references could also be cited. The writing of the case report needs further attention. According to the CARE Checklist, several parts are missing.*

*Language Quality: Grade C (A great deal of language polishing)*

*Scientific Quality: Grade C (Good)*

**Answer:** We really appreciate and agreed science editor's comment. We added the Signed Informed Consent Forms both for surgery and clinical research. Besides, more and new references are increased and updated. The missing part according to the CARE Checklist is supplemented. The article has also been embellished with language by professional language editors.

### ***(2) Company editor-in-chief:***

*I have reviewed the Peer-Review Report, the full text of the manuscript, and the relevant ethics documents, all of which have met the basic publishing requirements of the World Journal of Clinical Cases, and the manuscript is conditionally accepted. I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report, Editorial Office's comments and the Criteria for Manuscript Revision by Authors. However, the quality of the English language of the manuscript does not meet the requirements of the journal. Before final acceptance, the author(s) must provide the English Language Certificate issued by a professional English language editing company. Please visit the following website for the professional English language editing companies we recommend: <https://www.wjgnet.com/bpg/gerinfo/240> Before final acceptance, uniform presentation should be used for figures showing the same or similar contents; for example, "Figure 1 Pathological changes of atrophic gastritis after treatment. A: ...; B: ...; C: ...; D: ...; E: ...; F: ...; G: ...". Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor. In order to respect and protect the author's intellectual property rights and prevent others from misappropriating figures without the author's authorization or abusing figures without indicating the source, we will indicate the author's copyright for figures originally generated by the author, and if the author has used a figure published elsewhere or that is copyrighted, the author needs to be authorized by the previous publisher or the copyright holder and/or indicate the reference source and copyrights. Please check and confirm whether the figures are original (i.e. generated de novo by the author(s) for this paper). If the picture is 'original', the author needs to add the following copyright information to the bottom right-hand side of the picture in PowerPoint (PPT): Copyright ©The Author(s) 2022. Please upload the approved grant application form(s) or funding agency copy of any approval document(s).*

**Answer:** Thank you very much for your detailed comments and suggestions. We have revised the manuscript according to the Peer-Review Report, Editorial Offices

comments and the Criteria for Manuscript Revision. We provide the English Language Certificate issued by a professional English language editing company according to the recommendation. The presentation of figures have been revised and the original figure documents were provided using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor as requested. We confirm all the figures are original and the copyright information was added.



## ROUND 2

We appreciate and thank the reviewer for this valuable comment and we'd like to explain this concern as follows. Firstly, there are still no literatures on the combination use of suture technique and membrane pins to fix the membrane and grafts. Also membrane fixation technique have beneficial implications for GBR, several potential risks have been documented when using titanium pins: costly, damage of the adjacent roots and underlying anatomical vital structures, and the need for an extensive reopening procedure to retrieve the nonresorbable pins. At the same time several different suture techniques have been proposed recent years. However, this suture techniques are all limited by the tensile strength and the resorption rate of the sutures, another limitation is that the linear-guided suture may result in possible migration of the particulate graft material in an apicocoronal direction. More importantly, the suture technique might not provide enough stability for grafts in large defects and only suitable for single implant site according to the literature. Therefore, in such cases as presented in the manuscript with large continuous bone defects a large number of pins are needed even it is costly and high technical sensitivity. Nevertheless, the additional use of suture technique helps to reduce the use of pins. We believe that the technique we presented in the article which combined pins and suture technique together is novel and it hasn't been reported till now. The novelty of this case report has been supplemented in the introduction parts. Moreover, we believe this technique might provide an alternative way to obtain better fixation results and it is useful, flexible and easy to use in clinical practice. Of course, well-designed future clinical studies are mandatory to verify that this technique described here generates comparable and reproducible results, and we will continue to do in-depth research in the future. And these explanations are supplemented at the end of the article. At last, we apologize for our poor english expression and they have been

improved in the revised version.