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Jan 1st, 2021

Dear Lian-Sheng Ma, Science Editor, Company Editor-in-Chief, Editorial Office

We appreciate the thoughtful comments and suggestions from both you and the reviewers regarding our manuscript, “*Three-dimensional-printed custom-made patellar endoprosthesis for recurrent giant cell tumor of the patella: a rare case report and review of the literature*”. We have addressed each of the editor and reviewers’ concerns point by point with additional references and clarifications. Specific responses to the editor and reviewers’ comments and criticisms are listed below:

Science editor: Issues raised: (1) I found the language classification was grade C. Please visit the following website for the professional English language editing companies we recommend: <https://www.wjgnet.com/bpg/gerinfo/240>; (2) I found the authors did not provide the approved grant application form(s). Please upload the approved grant application form(s) or funding agency copy of any approval document(s); (3) I found the authors did not add the PMID in the reference list. Please provide the PubMed numbers citation numbers to the reference list and list all authors of the references.

Issue 1: I found the language classification was grade C. Please visit the following website for the professional English language editing companies we recommend: <https://www.wjgnet.com/bpg/gerinfo/240>;

Response: Thank you for your hard work. The language has been edited by a professional English language editing company. The English editing certificate has been uploaded.

Issue 2: I found the authors did not provide the approved grant application form(s). Please upload the approved grant application form(s) or funding agency copy of any approval document(s);

***Response:** We are grateful for your careful work. The approved grant application forms have been uploaded.*

Issue 3: I found the authors did not add the PMID in the reference list. Please provide the PubMed numbers citation numbers to the reference list and list all authors of the references.

***Response:** Thank you for your kind advice. The missing PMIDs and author names in the References part have been added.*

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: The study is focusing on a important and novel topic. However, there are some questions that were not answered. What are the hypotheses that were confirmed through experiments in this study? What are the future directions of the topic described in this manuscript? What are the questions that this study prompts for the authors to do next?

Q1: What are the hypotheses that were confirmed through experiments in this study?

***Response:** We feel great thanks for your professional review work on our manuscript. The hypotheses that the reconstruction with 3D-printed custom-made patellar endoprosthesis after total patellectomy can reconnect the quadriceps tendon and patellar tendon properly, restoring acceptable postoperative lower-limb function was confirmed through the experiments in this study. The related sentence has been added to the **Outcome and Follow-up** part (Page 8, Line 154-156).*

Q2: What are the future directions of the topic described in this manuscript?

***Response:** We think the question is quite meaningful. Currently, various materials including cobalt-chrome, pyrolytic carbon, poly-ether-ether-ketone and ultra-high-molecular-weight-*

*poly-ethylene; whereas all these materials have relatively high stiffness comparing to host cartilage. High stiffness mismatch can accelerate the wear of opposing cartilage. Therefore, investigating novel materials in the articular surface to prevent cartilage degeneration is required in such hemiarthroplasty ^[1]. The related contents have been added to the **limitations** part (Page 12, Line 238-240).*

References

1. Berkmortel C, Langohr GDG, King G, Johnson J. Hemiarthroplasty implants should have very low stiffness to optimize cartilage contact stress. J Orthop Res 2020; 38(8):1719-1726 [PMID: 32017162 DOI: 10.1002/jor.24610]

Q3: What are the questions that this study prompts for the authors to do next?

***Response:** Thank you for your valuable question. In this study, the patient received good knee function with no complication during the short-term follow-up. However, the mid- to long-term outcome is still unknown. Considering relatively good lower-limb function, the patient is allowed to go back to her work. In that situation, following the patient, observing the degeneration of patellofemoral articular surface, and assessing the integration between bone and tendon are our study endpoints. The related contents have been added to the limitations part (Page 12, Line 235-238; Page 13, Line 250-251)*

Reviewer #2:

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Accept (General priority)

Specific Comments to Authors: This is an interesting case of Giant Cell Tumor of the patella with good discussion of the reconstruction, it's functional outcomes, as well as limitations. I have no problem accepting this for publication.

***Response:** We really appreciate your hard review work on our manuscript. This technique provides a feasible alternative for patients received total patellectomy.*

We would again like to emphasize our gratitude for the insightful comments of the editor and reviewers. In our view, the changes we have made will substantially strengthen the manuscript.

We hope the editor will now consider our revised paper acceptable for publication in *World Journal of Clinical Cases*.

Best regards,

Chongqi Tu, MD