

Response Letter (Revision)

Dear editor and Reviewers,

On behalf of my co-authors, we thank you very much for giving us an opportunity to revise our manuscript. We appreciate editor and reviewers very much for their positive and constructive comments and suggestions on our manuscript entitled "*Analysis of the causes of primary revision after unicompartamental knee arthroplasty: A case series*". Those comments are all valuable and very helpful for revising and improving our paper, as well as the important guiding significance to our researches. We have studied comments carefully and have made correction which we hope meet with approval. Revised portion are marked in BLACK LETTER HIGHLIGHTED IN YELLOW in the manuscript. Appended to this letter is our point-by-point response to the comments raised by the reviewers.

RESPONSES TO COMMENTS OF EDITOR AND REVIEWERS

Reviewer 1:

Comment 1: Thank you for allowing me to review this manuscript. This is a good case series detailing the causes of revision of UKA in 13 patients. The title is appropriate for this paper. I find this paper to be important as it does a good job in letting the readers understand the various possible complications of UKA and how to manage them.

Response: We greatly appreciate your comprehensive and accurate interpretation of this manuscript, and your professional feedback is also very beneficial for improving the quality of this research. In addition, we have made extensive and detailed revisions to this manuscript based on your comments. Specific details can be found below.

Comment 2: I find that it would be beneficial if the author could let the readers know how many UKA was performed during these time frame and these complications constituted how many percentage of all patients operated by the centre. This could also help other surgeons to counsel and be aware with the possibility of such

complications.

Response: Thank you for your meticulous suggestions to improve the quality of our manuscript. In fact, all patients undergo UKA for the first time, which we have clearly explained in our manuscript. In addition, as some patients who require UKA revision do not undergo UKA surgery in our unit, we do not calculate the proportion of complications based on the surgical patient base of our center.

Revised in the manuscript (Page 3):

(2) first revision treatment after UKA (same side) (patients who underwent revision after the primary revision were not included).

Comment 3: The authors should also note the outcome of the revisions after each revision method. A good scoring system or objective findings should be described post op to let the readers know the final result of the revision.

Response: Thank you for your positive comments and valuable suggestions to improve the quality of our manuscript. Based on your comments, we have added the outcome of the UKA revision in the manuscript and Table 1.

Revised in the manuscript (Page 4):

As of February 2021, we have followed up all 13 patients who underwent revision surgery after UKA for at least half a year, and all patients have achieved good joint function.

Table 1 Characteristics of 13 included cases.

Case	Sex	Age (Years)	Side of knee	Year of revision	Duration of prosthesis	Cause for UKA revision	Outcome of UKA revision
Patient 1	Female	61	Right	2017	1 month	Improper suture	Cured
Patient 2	Male	69	Right	2018	4 months	Osteophyte	Cured
Patient 3	Male	67	Right	2017	5 months	Osteophyte	Cured
Patient 4	Female	59	Left	2018	20 months	Intra-articular loose body	Cured
Patient 5	Female	70	Left	2020	36 months	Intra-articular loose body	Cured
Patient 6	Male	75	Right	2018	8 months	Tibial prosthesis loosening	Cured
Patient 7	Female	70	Left	2018	23 months	Tibial prosthesis loosening	Cured
Patient 8	Female	76	Right	2017	72 months	Rheumatoid arthritis	Cured
Patient 9	Female	76	Right	2018	15 months	ACL injury	Cured
Patient 10	Female	63	Right	2019	7 months	Gasket dislocation	Cured
Patient 11	Female	63	Right	2016	48 months	Gasket dislocation	Cured
Patient 12	Female	69	Left	2018	10 months	Gasket dislocation	Cured
Patient 13	Female	61	Left	2018	3 days	Medial collateral ligament injury and bone cement residue	Cured

Editor

Comment 1: Please provide the filled conflict-of-interest disclosure form.

Response: Thank you for the comment. We have uploaded this form.

Comment 2: Please provide the Figures cited in the original manuscript in the form of PPT. All text can be edited, including A, B, arrows, etc. With respect to the reference to the Figure, please verify if it is an original image created for the manuscript, if not, please provide the source of the picture and the proof that the Figure has been authorized by the previous publisher or copyright owner to allow it to be redistributed. All legends are incorrectly formatted and require a general title and explanation for each figure. Such as Figure 1 title. A: ; B: ; C: .

Response: Thank you for the comment. We have uploaded this PPT as requested.

Comment 3: Please add the Core tip section. The number of words should be controlled between 50-100 words.

Response: Thank you for the comment. Based on your comment, we have added the core tip section in the manuscript.

Revised in the manuscript (Page 2):

Core Tip: Despite the many advantages of unicompartmental knee arthroplasty (UKA), the long-term survival rate of implants and the rate of UKA revision remain controversial. Therefore, clarifying the reasons that may cause UKA revision can further reduce the revision rate of UKA surgery. We found that the main reasons for the initial revision of UKA were gasket dislocation, osteophytes, intra-articular loose bodies and tibial prosthesis loosening. Avoiding these factors may greatly reduce the revision rate after UKA surgery, improve patient satisfaction, and reduce medical burden.

Comment 4: The main text of case report contains “INTRODUCTION”; “CASE PRESENTATION”: [(1) Chief complaints; (2) History of present illness; (3) History of past illness; (4) Personal and family history; (5) Physical examination upon

admission; (6) Laboratory examinations; and (7) Imaging examinations]; “FINAL DIAGNOSIS”; “TREATMENT”; and “OUTCOME AND FOLLOW-UP”; “DISCUSSION” and “CONCLUSION”.

Response: Thank you for your positive comments and valuable suggestions to improve the quality of our manuscript. The content of this manuscript is a series of cases, not a separate case report. Therefore, we have adopted more concise and non repetitive statistical or scientific descriptions, rather than just limited to case reports. We hope that the logic of this manuscript can be approved.

Comment 5: The structure of Abstract does not meet the requirements. The abstract includes five parts: "BACKGROUND", "CASE SUMMARY", and "CONFUSION".

Response: Thank you for your meticulous suggestions to improve the quality of our manuscript. Based on your comment, we have revised this in the abstract part.

Comment 6: Please provide all fund documents [National Natural Science Foundation of China (No. 82004386), the Research Fund for Zhaoyang Talents of Guangdong Provincial Hospital of Chinese Medicine (No. ZY20222YL21) and the National key research and development program (2021YFC1712804)].

Response: Thank you for the comment. Based on your suggestion, we have uploaded the final fund documents.

Comment 7: Please provide the PMID numbers to the reference list and list all authors of the references. If there is no PMID or DOI, please provide the website address.

Response: Thank you for your valuable suggestions to improve the quality of our manuscript. Based on your comment, we have provided all the PMID numbers and listed all authors.

Revised in the manuscript :

References part.

We e would like to express our great appreciation to you and reviewers for comments on our paper. And we have tried our best to revise our manuscript according to the comments. In order to meet the language requirements of English papers, we have invited *American Journal Experts* to modify and polish this article. We hope that our manuscript could be considered for publication in your journal.

Once again, thank you very much for your comments and suggestions. If this article needs further revision, please do not hesitate to contact us.

Looking forward to hearing from you.

Thank you and best regards.

Yours sincerely,

Jun Liu and Jianke Pan