

**Dear Sir**

Thank you very much for the valuable comments of reviewers and editors, which plays a great guiding role in the article. We have revised the article according to the opinions of reviewers and editors, hoping to meet the requirements of the magazine.

Best regards

**Round 1**

**Reviewer #1:**

**Scientific Quality: Grade C (Good)**

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

**Conclusion: Major revision**

**Specific Comments to Authors:**

**1 Title. The title is attractive, however, it needs to be rewritten as there is no new theory in the described technique.**

**The lines were not numbered.**

**Reply:** 1、 We have revised the title. The new title: Total knee arthroplasty in Ranawat II valgus deformity with enlarged femoral valgus cut angle (Line 5-6)

2、 We have increased the line number.

**2 Abstract. The background is not sufficient and needs to be more informative.**

**The abstract should not contain abbreviations (HKA, ROM, OKS, and KSS) and**

**WERE compared with the conventional TKA group (C-TKA). (last line in methods)**

**Reply:** 1、 We have added content in the background: “Nearly 10% ..... the knee. For severe VD of the knee, a more lateral structural release is needed to achieve balance between medial and lateral space and neutral femorotibial mechanical axis (FTMA), which is challenging and technical.” (Line 49-52)  
2、 We have standardized the format of abbreviations (HKA, ROM, OKS, and KSS) (Line 60-61)  
3、 We have changed "was compared..." to "were compared..." (Line 63)

**3 Keywords. Keywords reflect the manuscript, however, 2 more keywords are needed**

**Reply:** We have added 2 keywords: osteotomy, bone and soft tissue balance (Line 84-85)

**4 Background. The background is well written with a good knowledge gap however, it is succinate and needs to expand to explain the need for a new method for treatment.**

**Paragraph 2, line 1, TO improve ... Paragraph 3 line 4 TO reduce the complexity .....**

**Reply:** 1、 We have further supplemented and explained the necessity of new technology. (Line 111-112)  
2、 We have charged the content: "To.....,to" (Line 122)

**5 Methods. Paragraph 1 line 6 or hemophilic arthritis WERE included in this study Operation process.**

Line 12, I think it is the lateral collateral ligament, not the lateral cruciate ligament.

The abbreviation VCA needs to be explained.

Postoperative management Line 2 should be (For prevention of deep venous thrombosis or VTE).

When the weight-bearing started? partial or full weight-bearing?

One which parameter the sample sizing was calculated?

**Reply:** 1、 We have changed "was included..." to "WERE included....." (Line 135)  
2、 We have changed "lateral cruciate ligament" to "lateral collateral ligament" (Line 157)  
3、 VCA has be explained in "INTRODUCTION" (Line 106)  
4、 We have changed "for prevention thrombosis" to "for prevention of deep venous thrombosis or VTE" (Line 186)  
5、 We have written down the time and form of starting loading: Day 1 post-surgery, patients were allowed to walk with full weight-bearing under the protection of crutches until the patient was confident walking independently. (Line 190-192)  
6、 knee society score (KSS) is the parameter the sample sizing was calculated.

6 Results. Are well explained however, the comorbidities and etiology of arthritis (osteoarthritis, rheumatoid... Etc) could be correlated with the outcome.

**Reply:** Thank you for your comments. The comorbidities and etiology of arthritis could be correlated with the outcome. It has been reported that the joint function and postoperative complications of osteoarthritis and rheumatoid arthritis are better than those of the latter after the primary TKA. However, there is still a lack of high-quality literature support. We made a statistical analysis of the preoperative diagnosis of the two groups, suggesting

that there was no significant difference in their disease distribution. We believe that this will reduce the impact of disease on postoperative outcomes.

Is our reply appropriate? If you have any questions, please contact us. Thank you.

**7 Discussion. Generally, it is well written and very effective Paragraph 3, Line 7 (TO Achieve optimal ....)**

**Reply :** We have changed “ for achieve optimal ....”to “ to achieve optimal .....”(Line 276)

**8 Illustrations and tables. As the authors introduce a new method for treatment, the photos are highly deficient with a lack of details**

**Reply:** We have added a complete picture of the surgical case to show the intraoperative technique (Figure 1) (Line 505-516)

**9 References. Are ok and up to date generally. just 1 self citation which is acceptable.**

**Reply:** We have checked the literature and have not added new literature.

**10 Quality of manuscript organization and presentation. the manuscript is well, concisely, and coherently organized, and presented in an average style, language, and grammar.**

**Reply:** Thank you. The revised manuscript has been polished again.

11 Research methods and reporting. STROBE statement is inserted in the subscription Comment. The paper is well written, however, the technique is not clear, not well-illustrated, and not understood the main difference between it and the standard methods. no new theory as assumed in the title of the manuscript Recommendation Major revision with more focus on explaining the new technique supported with illustrations

**Reply:** Thank you for your comments. We have read and revised the article repeatedly. Let me explain to you the new theory mentioned in the article. In conventional TKA of knee valgus, the osteotomy angle of distal femoral valgus is often 3-5 degrees. At the same time, most operators pursue perfect neutral FTMA. For severe valgus deformity knee, a large number of soft tissue release is needed to restore neutral FTMA, which may lead to joint instability and increased use of restricted prosthesis. We increased the valgus osteotomy angle of the distal femur in order to reduce the difficulty and degree of soft tissue release through bone compensation. Our article proves that this is feasible. During TKA, we also pursue neutral FTMA. When neutral FTMA needs to be exchanged with joint instability and restrictive prosthesis, we will give up neutral FTMA.

This is the main idea of our article. I wonder if this answer can achieve your expected results.

## 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 paper is well written. However, the proposed new technique is not clear and not well-illustrated. Moreover, the main difference between it and the

standard methods is not clearly demonstrated.

Language Quality: Grade B (Minor language polishing)

Scientific Quality: Grade C (Good)

**Reply:** We have completed the revision according to the comments of the reviewer, and try our best to make the new technology clearer.

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

I have reviewed the Peer-Review Report, 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. 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. Please upload the approved grant application form(s) or funding agency copy of any approval document(s).

**Reply:** We have provided the original figure documents using PowerPoint. Meanwhile, we also have uploaded the approved funding agency copy of approval documents.

## **Round 2**

1 Title. The new title is informative however, I suggest adding (: A new technique to achieve balanced gap ) to be more attractive and informative

We have modified the title: Total knee arthroplasty in Ranawat II valgus deformity with enlarged femoral valgus cut angle: A new technique to achieve balanced gap (Line 6-7)

2 Abstract. The abstract improved a lot , however , it is suggested to replace the word (Theory) by (Technique), this makes the terms more appropriate

We have replaced the word (Theory) by (Technique): (Line 46, 118, 348)

3 Background. The comments on this sections have been fulfilled

None

4 Methods. In the section of surgical technique , line 1 , (in the ) not (inthe) Did the surgeons use tourniquet or not? Antibiotic prophylaxis? It is more important than anaesthetic medications One which parameter the sample sizing was calculated?

We added the description of antibiotics and tourniquet, and deleted the content of anaesthetic medications. (Line 132-133)

We added the description of sample calculation parameters. (Line 182)

5 Results. The comments on this sections have been fulfilled

None

7 Discussion. Generally, it is well written and very effective

We revised the references and some contents. (Line 274)

8 Illustrations and tables. Illustrations has been added , higher quality photos are welcome

None

9 References. Are ok and up to date generally

We have revised the references

10 Quality of manuscript organization and presentation. the manuscript is well, concisely, and coherently organized, and presented in an average style, language, and grammar.

None

11 Research methods and reporting.

STROBE statement is inserted in the subscription. Recommendation Minor revision with change of the title supported with illustrations " 2. Regarding the figures: Please provide the decomposable figure of figures, whose parts are all movable and editable, organize them into a PowerPoint file, and submit as "Manuscript No. -Figures.ppt" on the system, we need to edit the words in the figures. All submitted figures, including the text contained within the figures, must be editable. Please provide the text in your figure(s) in text boxes. Please provide original figures without any markers. -----

We have provided the PPT and the the raw data of Figure C and D in the PPT.

3. Please don't include any \*, #, †, §, ‡, ¥, @....in your manuscript; Please use superscript numbers for illustration; and for statistical significance, please use superscript letters. Statistical significance is expressed as aP <0.05, bP <0.01 (P > 0.05 usually does not need to be denoted). If there are other series of P values, cP <0.05 and dP <0.01 are used, and a third series of P values is expressed as eP <0.05 and fP <0.01. -----

We have changed the P=0, 007, P<0.002 and P=0.034 to bP <0.01, dP <0.01 and aP <0.05, and deleted P > 0.05. (Line 221, 230)

4. It is unacceptable to have more than 3 references from the same journal. To resolve this issue and move forward in the peer-review/publication process, please revise your reference list accordingly. Such as: J Arthroplasty; J Bone Joint Surg Am. -----

We deleted the original literature 6, 7, 13 and 19, and changed the Literature 16 to 12. (Line 274)

[12] Kim YH, Park JW, Kim JS, Park SD. The relationship between the survival of total knee arthroplasty and postoperative coronal, sagittal and rotational alignment of knee prosthesis. Int Orthop, 2014, 38(2), 379-85. doi:10.1007/s00264-013-2097-9

5. Please complete all the revisions based on the version of "1855-70109\_Auto\_Edited-v1", and upload above mentioned files in a ".zip" file.

We have completed the above work.