Dear Editors and Reviewers:

Thank you for your letter and for the reviewers' comments concerning our manuscript entitled "Early patellar tendon rupture after total knee arthroplasty：A direct repair method" (NO: 75538). 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. As you recommended, we have submitted a clean revised manuscript. The main corrections in the paper and the responses to the reviewer's comments are as following:

Responses to the comments of **Reviewer 1**:

1. Comments (Line 153 1 man not 1 men)

Responses: We changed the description. Original description is "1 man" now changed to "1 men".

2. Comments (Line 177-184 Titanium cable was used with cable clamps Was there any advice/plan for the removal of these tension reduction wires Tension reduction wires can be applied with SS wires also and meant for protection up to 3-4 months. They are ideally removed after mobilisation till 90 degrees or 3- 4months post op otherwise they tend to break and cause tissue irritation.)

Responses: We added the advice for the removal of these tension reduction wires. The revised content is "Titanium cable is generally removed 2-3 months after operation. It is necessary to avoid prolonged indwelling of titanium cable, otherwise it may cause irritation to surrounding tissues, titanium cable fracture and limit the range of motion of knee joint of patient, etc".

3. Comments (Line 206 -208 The patient with postoperative early patellar tendon rupture underwent primary knee arthroplasty because of right knee osteoarthritis, and underwent 4 operations because of postoperative complications after primary TKA Please mention the reasons for 4 surgeries after TKA.)

Responses: We explained the reasons for 4 operations in detail after line 206-208.

4. Comments (Line 210 onwards The patient suffered from patellar tendon rupture due to trauma, and was treated with suture anchor repair technique in the other hospital (Fig. 4-A). However, a large amount of exudation occurred in the knee incision after operation, so open irrigation, debridement, liner exchange was performed, but the knee was painful and had poor flexion. A few months later, the patient was treated with open reduction and this direct repair (Fig. 4-B). Unfortunately, the titanium cable in the A few months later – exact duration. Direct repair after few months after debridement - any problems with direct repair. Was tendon quality good , if repair of sub optimal tissue done, were the results compromied Recommendation – use of hamstrings graft as augmentation. he methods, discussion , and conclusion needs improvement and more specific details Needs to more specific in recommendations regarding possible method for reconstruction End to end repair is not an ideal option Augmentation with hamstrings should be considered Good data needs to be presented better and a

suitable conclusion and recommendation given)

Responses: If repair of sub optimal tissue done, the results were not compromised. In the Discussion section, lines 319-332, we added discussion about hamstrings graft.

Responses to the comments of **Reviewer 2**:

1. Comments (It is not clear whether combining early physical therapy (even with maintenance of the no flexion principle for 6 weeks), however with introduction of mild electrical stimulation for quadriceps activation and perhaps having a positive effect on the extensor lag as well. Also, some introduction of carefully applied progressive lower limb loading may have offered some additional functional benefit in these patients. The authors should comment on this issue, as the main concern of this paper seems to be to directly compare the results of this study with other studies that have used different surgical methods, although they all had small sample sizes.)

Responses: In the Discussion, line 322-332, we added the content about whether combining early physical therapy would affect the postoperative function of patients.

2. Comments (Lines 118 & 173: Replace the word 'fracture' with 'rupture'.)

Responses: We have changed the 'fracture' to the 'rupture'.

3. Comments (Lines 182-185: Please provide reference(s) for the immobilization period used and for participants of this age.)

Responses: We added reference(s) for the immobilization period used and for participants of this age.

Responses to the comments of **Reviewer 3**:

1. Comments (The manuscript does not describe the background and present status. The significance of the study is not mentioned clearly.)

Responses: In the Introduction, we added the content about the background and present status, and we specify the significance of the study.

2. Comments (Inclusion and Exclusion criteria of the study is not mentioned.)

Responses: In the Materials and methods，We added the Inclusion and Exclusion criteria of the study.

3. Comments (The methodology section is not clear as mentioned "Mean follow-up was 5.7 years" for what? Is it for TKA patients or for patients with patellar tendon rupture? ·Please Explain the rationales of the study in greater details.)

Responses: In the Materials and methods, we explained it is for patients with patellar tendon rupture.

4. Comments (The objectives of the study need to be explained in brief in the abstract ·Outcomes assessment may be included ·Hypotheses of the study was not stated..)

Responses: In the abstract，We revised the objectives of the study to make it cleaner，and included the outcome assessment.

5. Comments (The methodology section is written in the future tense)

Responses: In the methodology section，We revised the tense.

6. Comments (Grammatical corrections are required. ·From the result section unable to understand the outcome of the study)

Responses: In the result section，We added a detailed explanation to understand the

outcome of the study.

7. Comments (Introduction - The aim of the study should be one. Please change the secondary aim to the objective of the study)

Responses: We changed the secondary aim to the objective of the study.

8. Comments (Methodology – Please check the grammar and paraphrase as required ·Results – Explain the demographic details and major factors affecting it.)

Responses: In the Methodology, we revised the wrong grammar and paraphrase. In the Results, we explain the demographic details and major factors affecting it.

9. Comments (Mention the clinical complications in the study. · Follow up not defined in sufficient detail. ·The caption of the figure-1 is not cleared rephrase it.)

Responses: We have rewritten the caption of Figure 1.

10. Comments (In figure 2 draw the arrow to mention the titanium cable(C) in the broken knee joint and the broken titanium cable punctured the skin to form a sinus.)

Responses: In figure 2,we draw the arrow to mention the titanium cable(C) in the broken knee joint and the broken titanium cable punctured the skin to form a sinus.

Others: We have made all the corrections according to the editorial request.

We appreciate for Editors/Reviewers' warm work earnestly, and hope that the correction will meet with approval.

Once again, thank you very much for your comments and suggestions.