Author's response to reviews

**Title:** Intra-articular corrective osteotomy for malunited Hoffa fracture: A case report

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**Author's response to reviews:** see over
Response to Reviewer #1

We appreciate your careful consideration of our manuscript entitled “Intra-articular corrective osteotomy for malunited Hoffa fracture: A case report.” We found your remarks very helpful. Accordingly, we have modified the manuscript and addressed the specific comments below.

1 We think that no necrosis developed after Hoffa fracture because the fractured site, including the depressed area, showed bony union.
In this case, the patient had a type I fraction according to the Letenneur classification. From the results of a cadaveric study, in type I injuries, some soft tissue elements will remain attached to the fractured condylar fragment and there will be some blood supply.

2 We have shown the CT image of the contralateral side. The maximum A/P length of lateral femoral condyle after the second operation was almost the same as that of contralateral side.
(Figs. 4e and f)

We hope that these revisions will prove satisfactory. Thank you for your kind consideration of the revised version.
Response to Reviewer #2

We appreciate your careful consideration of our manuscript entitled “Intra-articular corrective osteotomy for malunited Hoffa fracture: A case report.” We found your remarks very helpful and modified the manuscript accordingly.

Page 4, lines 7-9: We corrected the phrase to “This incongruity of the lateral compartment of the knee joint was considered to be responsible for his complaints.”

We hope that this revision will prove satisfactory. Thank you for your kind consideration of the revised version.
Response to Reviewer #3

We appreciate your careful consideration of our manuscript entitled “Intra-articular corrective osteotomy for malunited Hoffa fracture: A case report.” We found your remarks very helpful. We have revised the manuscript accordingly and addressed the specific comments below.

1 We did not perform Gerdy’s tubercle osteotomy. We have added the details of our approach as follows:
   With the knee flexed to 90°, the iliotibial band was retracted posteriorly, and the joint capsule was cut. This exposed the lateral collateral ligament (LCL), popliteus tendon, and the posterolateral corner. (Page 4, lines 14-16)

2 We examined the radiograph and CT scan of the contralateral side and decided the angle or length of wedge osteotomy. We have added a scale bar to Figs. 1d and 4d and added an image of the contralateral side (Fig. 4e) with scale bar.
   We did not use the condylar twist angle when we planned the operation.

3 We made a mistake in this sentence.
   Page 3, lines 21-22: We corrected the phrase to
   “At 2 months postoperatively, the range of motion was 0°/full extension to 40° of flexion, and manipulation of the knee joint was performed under anesthesia.”
   Please refer to page 4, lines 3-4
   “Physical examination showed that the range of motion was 0°/full extension to 120° of flexion.”

5 In this case, insertion of the LCL and popliteus tendon was preserved. We have protected these structures from possible injury with the bone saw during osteotomy. We illustrated these structures in Figure 3a and added Figure 3b.

4,6 We added a discussion on the mechanism of ACL injury associated with Hoffa fracture as follows:
   In this case, ACL injury and Hoffa fracture occurred at the same time. However, there is a big difference between the etiology of ACL injury and that of Hoffa fracture. To the best of our knowledge, no reports have described ACL injury associated with Hoffa fracture.
We speculate that the mechanism of injury in this case was as follows: this patient was in the knee-in position when he landed during snowboarding. At that time, his ACL was injured, and his lateral femoral condyle was depressed because it received a high impact force. Then, he fell and bruised his knee while it was in a position of flexion of more than 90°; therefore, his knee received an axial loading force to the femoral condyle resulting in a Hoffa fracture.

(Page 5, lines 13-22)

We hope that these revisions will prove satisfactory. Thank you for your kind consideration of the revised version.
List of changes

Page 3, line 22: We corrected the phrase “while” to “and”.

Page 4, lines 7-9: We corrected the phrase to “This incongruity of the lateral compartment of the knee joint was considered to be responsible for his complaints.”

Page 4 lines 14-16: We added the phrase “With the knee flexed to 90°, the iliotibial band was retracted posteriorly, and the joint capsule was cut. This exposed the lateral collateral ligament (LCL), popliteus tendon, and the posterolateral corner.”

Page 4 lines 18-19: We corrected the phrase “Insertion of the LCL and popliteus tendon was preserved on the proximal fragment.”

Page 5 lines 13-22: We added a discussion on the mechanism of ACL injury associated with Hoffa fractures.

Page 10 legend of Figure 1: We added the phrase “Figure 1d scale bar: 5 cm.”

Page 10 legend of Figure 3: We added the phrase “the popliteus tendon (white arrow).”

Page 10 legend of Figure 4: We added Figure 4f and the phrase “Figures 4e and f scale bar: 5 cm.”

Figure 1: We added a scale bar in Figure 1d.

Figure 3: We added the LCL and popliteus tendon in Figure 3a. We added Figure 3b.

Figure 4: We added Figure 4f computed tomography scan of the contralateral side. We added a scale bar in Figures 4e and f.