

Dear Editors and Reviewers:

Thank you for your letter and for the reviewers' comments concerning our manuscript entitled "Open reduction and Herbert screw fixation of Pipkin type IV femoral head fracture in an adolescent: A case report" (59348). 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 red in the paper. The main corrections in the paper and the responds are as flowing:

**✖ Responds to the reviewer's comments:**

**Reviewer #1**

Dear reviewer, thank you so much for your reviewing! We deeply appreciate your recognition of our research work.

**Reviewer #2:**

1. Response to comment: **some minor points that need clarification: suffered a serious traffic accident when she was sitting on the (abstract, Line 26) vs after being struck by a car (Case presentation, Line 60).**

Response: We are very sorry for our negligence of describing the injury details. The patient was struck by a car when she was sitting on the back seat of a moto bike. We have modified it in the article : being struck by a car when she was riding pillion on a motor bike(Case presentation, Line 77)

2. Response to comment: **The inferior fat and fascia (Line 84) do you mean subcutaneous tissue?**

Response: It is really true as Reviewer suggested that the inferior fat and fascia mean subcutaneous fat and deep fascia of the thigh.

3. Response to comment: **The patient was released (Line 102). Do you mean discharged from hospital? six months after surgery (Line 103)**

Response: We are very sorry for our incorrect writing. The patient was released 2 weeks after surgery. We have re-written this part according to the Reviewer's suggestion: The postoperative hospitalization time was 2 weeks (Line 135) and At 6 months after discharged from hospital (Line 136,137) .

4. Response to comment: **One year later the patient (Line 104), is that one year after surgery?**

Response: We are very sorry for our inaccurate expression. We have made correction according to the Reviewer's comments: One year after the surgery (Line 138).

5. Response to comment: **some minor points that need clarification and/or re-phrasing: bony union (Line 107)**

Response: We have made correction according to the Reviewer's comments: fracture healing (Line 142).

6. Response to comment: **some minor points that need clarification and/or re-phrasing: to be complicated by associated fracture (Line 152,153)**

Response: We have re-written this part according to the Reviewer's suggestion: Compared with adults, associated fractures are more uncommon in children with traumatic hip dislocation (Line 152,-154).

7. Response to comments: **some minor points that need clarification and/or re-phrasing: is a temporizing measure (Line 142)**

Response: We have made correction according to the Reviewer's comments: is a temporary measure (Line 170)

8. Response to comments: **The wound was debrided and soft tissue interposition, such as with the ruptured ligament, was removed (Lines 163-164).???**

Response: Considering the Reviewer's suggestion, we have We have re-written this sentence: Other small debris and the severed ligamentum teres were removed to facilitate the reduction of hip joint (Line 196,197). And we have supplemented it in the Surgical Procedure: After resection of the torn ligament and articular purge (Line 123,124). As we had mentioned in the Surgical procedures: there were some smaller articular debris were detected (Line 120) and the ligamentum teres was ruptured from its insertion into the acetabulum (Line 122), These tissues couldn't be repaired and may hinder joint reduction and cause osteoarthritis, so we had removed the debris and ruptured ligament. Surgical sectioning of the ligamentum teres facilitates reduction and does not appear to be associated with an increase in poor results [1].

### **Reference**

1. Gillespie P., Aprato A., Bircher M. (2014) Hip Dislocation and Femoral Head Fractures. In: Bentley G. (eds) European Surgical Orthopaedics and Traumatology. Springer, Berlin, Heidelberg, 2014:2179-2202.

*Supplementary: The line number of our manuscript has changed because of text typesetting.*

Special thanks to you for your good comments.

### **※ Responds to the Science editor's comments:**

1. Response to comment: **(1) I found no "Author contribution" section. Please provide the author contributions.**

Response: We are very sorry for our negligence of providing the "Author contribution". We have added content of "author contribution" in the manuscript (Line 17-25).

2. Response to comment: (2) I found the authors did not provide the approved grant application form(s).

Response: Our manuscript has no supportive foundation, so we might not provide any approval document.

3. Response to comment: (3) I found the authors did not add the PMID and DOI in the reference list.

Response: We have added PMID and DOI for all references according to the editor's suggestion.

※ **Other changes:**

1. Line 8, "Running title" was added.
2. Line 49-50, **the keywords** was corrected as "Pipkin classification, Femoral head fracture, Adolescent, Fracture fixation, Case report" (Line 51-52).
3. Line 86-87, "History of past illness" was added.
4. Line 103, in order to comply with the requirements of the article format, the section of "Preoperative skeletal traction" and the first paragraph "Surgical procedures" were put into the part of "TREATMENT".
5. Line 133, the second paragraph of "Surgical procedures" was put into the part of "OUTCOME AND FOLLOW-UP" to make the manuscript more concise and clearer.

We tried our best to improve the manuscript and made some changes in the manuscript. And here we did not list all the changes but marked in red in revised paper. These changes will not influence the content and framework of the paper.

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.