

Peer Review File

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Reviewer A

Q1: ABSTRACT: 3-9: perhaps your text needs to be more detailed.

A: Thank you. You are very professional. We detailed the abstract in the revised manuscript. Please check it for accuracy.

“The reconstruction of acetabular bone defect in developmental dysplasia of the hip (DDH) is of great challenge. Although several solutions have been raised, their efficacy and reliability have not been fully substantiated. We presented a simple, economic and effective acetabular reconstructive technique to resolve the massive acetabular bone defect in DDH scenario. This article organized as surgical technique, aims to report the surgical principle, indication, and procedure of using extra-articular blocking technique.”

Q2: INTRODUCTION

16: please re-write the sentence more clearly.

17: “DDH” instead.

18: please erase “was”.

20: “millions”.

23: “main difficulty” and “the acetabulum”.

24: please erase “developmental dysplasia of the hip,”

38: “THA” instead.

42-44: this sentence is for the Methods section.

A: Thanks for your kind remind to the linguistic and grammar mistakes in the last version. We revised manuscript as your suggestion. Please check the editing for accuracy.

Q3: METHODS

45: please consider the last sentence of my advice list.

51: “This video” is not appropriate. You should describe a video.

60: “guide” instead.

64: please erase “usually”.

68-69: please re-write the sentence more clearly.

80: “hydroxy-apatite (HA)” I presume?

81: “Morselized cancellous bony fragments were harvested...”

A: We revised manuscript as your suggestion. Please check the editing for accuracy.

Q4: RESULTS

86: you forgot to describe a “Results” section.

Please re-write the entire Results section with your results according to the Methods section.

A: We added “Results” section in the revised manuscript. Please check it for accuracy.

“Results

With an average observational period of 18 months, in all of the 16 hips, we found bone integration at the final follow-up. There was no bone loss or graft absorption until the last follow-up as evidenced by radiographic observation. The fluoroscopic healing and remodeling were found at 3 months after surgery, respectively. The survival rate of the acetabular component was 100%, no radiolucent line, changes in inclination and anteversion of the shell, as well as migration of the rotation center were identified.”

Q5: DISCUSSION

91: please begin your Discussion with “The most important finding in this study was ..”

92: you did not assess other pathologies as mentioned, did you?

93: “cost-effectiveness”, are you sure about this? BMP-2 is very expensive. Did you perform an economic study?

98: “plays”.

104: “an insufficient...”

A: 92) Yes, we assessed other pathologies mentioned in the manuscript. We applied this technique to reconstruct acetabular bone defect successfully, which derived from congenital (e.g., DDH), osteolytic (e.g., aseptic loosening of the acetabular component), and inflammatory (e.g., rheumatoid arthritis) pathologies.

93) Yes, you are right. BMP-2 is very expensive, but compare to trabecular metal augment for reconstruction, this technique cost less. In our economic study, the medical documents showed the mean save of the medical cost for the patients with this technique is 11500 RMB, as compared to those treated with trabecular metal augment.

Q6: CONCLUSION

1) There is no actual conclusion.

2) And there is no Figure.

A: Thank you for your kind reminding. We have completed the conclusion section in revised manuscript. Please check it for accuracy.

“Conclusion

In conclusion, the extra-articular blocking technique is an efficient attempt to reconstruct the defect of acetabulum in DDH, as evidenced by cost-effectiveness and

instant weight-bearing advantages, low failure rate, and early osteointegration and remodeling.”

Reviewer B

I read your manuscript with interest and appreciation. In my opinion your paper presents very interesting operative technique. Unfortunately, your paper does not include very important paragraphs and data like: material: number of patients, gender, age, indication for surgery, type of DDH defect. Also, the name of implant and the name of its manufacturer should be presented. You should also present the methods that you used for evaluation of both radiological and clinical results. Also, the paragraph results is missing. You should present the figures of preoperative postoperative and long follow up x-rays as well as CT scans to prove bone grafts healing. In discussion you should compare your results with similar techniques as well as different methods of deficient acetabular roof reconstruction (solid bone grafts, trabecular metal etc.). The follow-up period is rather short so in my opinion you should underline that in the title and manuscript that it is a preliminary report.

A: Thanks for your affirmation. Because this submission was categorized as technical note with video, not original research article, we cannot provide systemic data about the demographic and characteristic baseline in this study. By the way, we have reported more details of the clinical outcome of extra-articular blocking technique published on Orthopaedic Surgery^[1].

Reference:

[1] Xu Z, Li Z, Li J, Zhang Y, Wang M, Zhang Y. Extra-articular Blocking Technique to Resolve Severe Acetabular Bone Defect in Developmental Dysplasia of the Hip. Orthop Surg. 2023 Apr;15(4):1187-1195. doi: 10.1111/os.13688.