

**Reviewer 1:**

Clinical validity was assessed by comparing FJS scores to the articular displacement. Please include much more point of views to assess the clinical validity. Does the score, as a functional score, reflect the return to work?

*Authors' response to reviewer:* Thank you for reviewing our manuscript. We appreciate your positive rating on our manuscript and are pleased to hear that it is under consideration of publication in WJO. We elaborated on the aspect of clinical validity much more in detail and added several issues regarding clinical validity. The score does not reflect the patient's occupational situation specifically. The FJS was designed as a PRO toll to assess the patient's view of the functional, disease-specific condition.

We believe that these changes regarding clinical validity improve generalizability of the study and make the score more valuable from a clinician stand point.

**Reviewer 2:****Evaluation of Joint Awareness after Acetabular Fracture: Validation of the Forgotten Joint Score according to the COSMIN checklist protocol**General comments

This manuscript presents extensive data to validate a patient reported outcome measurement tool, the Forgotten Joint Score, for patient suffering from acetabular fracture. The result of this study is useful for clinical practice. Several areas of the manuscript may need to be re-organized or re-written for clarification. In addition, there are some mythological issues that may influence the quality of this study.

*Authors' response to reviewer:* We are grateful for the time and energy you spent in reviewing our manuscript. We elaborated on the manuscript following our remarks. We believe that these changes are a true improvement of the manuscript.

Specific comments**Abstract**

Please double check the mean age.

*Authors' response to reviewer:* We apologize for this mis-understanding. The time period given in the abstract is not the age of the patients, but the time interval between injury and follow-up. We altered this expression to make this clear.

## **Background**

-Paragraph 1: I would suggest deleting the first three sentences and to start with the acetabular fracture. The description for acetabular fracture is inadequate and fragmented. What are the long-term outcomes? Please give example for risk factors for a poor radiographic outcome. Please provide spell out the PRO before using the abbreviation. Also, please keep the abbreviation consistent.

-Paragraph 2: I would suggest starting with the second sentence. What PROM tools are currently used for patients with acetabular fracture? WOMAC-VAS, TAS, EQ index, and EQ VAS were used to examine convergent validity in the method section. A brief description and justification of these questionnaires in the Background section will be helpful.

-Paragraph 3: Please elaborate the COSMIN checklist.

-Paragraph 4: What is the time frame for "long term"?

*Authors' response to reviewer:* Thank you for your comments on the background section. We altered this section according to your recommendations. You raised a valuable issue in paragraph 4. Since the minimum follow-up was one year, we altered the term to mid- to long-term.

## **Materials and Methods**

-Inclusion criteria: "long-term condition after acetabular fracture" is unclear.

-Exclusion criteria: please provide examples for relevant concomitant injuries.

-The prognosis, severity, and received treatment of these included patients are not clearly described. Did the patient received surgery in the same facility where they were enrolled as the participants? What kinds of treatment did the patients received after they were enrolled in this study? At what time point were the patients asked to participate in this study? How many centers involved in this project?

-Please provide the reasons why 58 patients refused to give informed consent.

-Please justify the time interval for test-retest reliability. The SD of 71.4 days seems too long.

-“EQ index ranging from -0.21 (worst health)”. Typo?

-Responsiveness: “between measurement A and B...”, what are measurements A and B? Please provide a citation for ES.

*Authors' response to reviewer:* We extended the follow-up term according to the prior recommendations and completed the exclusion criteria.

Concordant to recommendations by the other reviewer, we added further clinical details and correlated these data with the mean score results (see also Results section). We also specified the time points (A and B) to make clear when the patients were evaluated. We also substantiated the study characteristics to outline that it is a non-centric study. The rate of patients refusing to give informed consent is high, however, it is a current trend of European people having concerns about privacy data protection leading to be reserved about medical data. This is also reflected by the relatively long time interval between the first and second evaluation for calculation of test-retest reliability. However, from a statistical point of view the anchor-based method including a subjective rating of change provides resilience of the calculation of the test-retest reliability and responsiveness. Nevertheless, we extended the discussion and limitations to outline this potential source of bias.

The EQ index value for 33333 is actually negative. The calculation of the score leads to -0.21 as worst score value for the EQ 5D 3L.

Sorry for the typo "between measurement A and B". This should be T1 and T2 to be consistent with the prior expressions. We altered the manuscript accordingly and provided two references for calculation of ES.

## **Results**

-Demographic data and generalizability: What are the AO-principles?

-Validity: "und", typo. Where are the results for the Letournel classification?

*Authors' response to reviewer:* We added a description on the AO-principles to inform the reader about the principles of acetabular fracture management in this patient sample.

We apologize for the typo. Correction made. We added a paragraph on the Letournel classification results.

## **Conclusion**

-I would suggest moving the last sentence to the beginning of the paragraph and finishing this paragraph by saying "Clinicians are suggested to use the FJS...".

Table 1: Some data are not means. Suggest changing the caption. Please add note for the abbreviations.

Table 2: Please add note for the abbreviations.

Figure 1: Please provide the reasons for lost to follow-up and missing informed consent. How frequent is the follow-up? Who decided the timing of follow-up? Is there a specific time frame? Or, is it up to the patients?

Figure 2: typo in the caption.

*Authors' response to reviewer:* Thank you for your suggestions to improve the conclusion. We followed your recommendation and altered the text. We also adjusted the caption of Table 1 and an explanation of the abbreviations used in Table 2.

Concerning Figure 2, it is not possible to give detailed information on the exact reason. If the patient was not willing to participate in the study for any reason regarding protection of personal data, we had to accept this. We recommend routine clinical and radiographic follow-up examinations at 6 weeks, 12 weeks, 6 months, 12 months, and 24 months post injury. However, if the patient refuses this evaluation, it is up to the patient and we don't get any information on the further course.

In this context, lost to follow-up means that we were not able to contact the patient by mail or telephone because of a change of address and telephone number.

We apologize for the typo. There is no such thing as an "y-ray" ;) We corrected the caption of Figure 2.