

August 7<sup>th</sup>, 2018

Dear Reviewers and editors of the world journal of orthopaedics,

Thank you so much for considering our manuscript for publications. Your comments are really helpful and we prepared and modified our manuscript accordingly.

The individual changes were performed:

Reviewer #1: The authors present a review paper on the biomechanics of posterior shoulder instability. Some changes should be made: 1. There are diagnostic tests that should be accompanied by references. For example, the MRI, as well as discuss the role of the arthro-MRI. 2. Table 1 is a good reminder of anatomy although it is not original. It is not clear that it should be maintained. 3. It would be very useful to add images of physical examinations and diagnostic tests.

We included images of MR-Arthrography and intraoperative findings with posterior labral tear and drew the Jerk and Kim test for better illustration. In addition we included a separate section on diagnostic imaging and compared CT with MR-Arthrography, as conventional MRI is inferior to MR-Arthrography. As mentioned we included the individual muscles in the text and removed our self-generated table. The table may provide a better overview even though we do understand your concerns as there are some similarities with the Sobotta Atlas and the referred article.

Reviewer #2: the paper : Biomechanics of Posterior Shoulder Instability – current knowledge and literature review is a very well written review article dealing with an interesting underestimated topic by the orthopedic community

Thank you so much for your comment, we gave it another native speaker to proof read the article and performed changes accordingly.

Reviewer #3: An area of interest, that the authors correctly note tends to "go under the radar" Please correct typos. More detail is required on: Conservative management especially physical therapy regimes A table on success rates quoted for surgical procedures The role of CT scans and MRI arthrograms - again tabulate the results from studies The diagnostic rigour in papers in confirming the type of instability Please comment on how the search terms were defined/ reached. Please comment on the lack of any definitive papers and the lack of precise treatment algorithms currently available

A separate table for CT scans and MR-Arthrography was created. Additionally, we added information about the success rate on individual procedures in table 2. For better understanding we commented on the definition of the search term and the current lack of algorithms.

Many thanks for all the valid criticisms. Please let us know if there are any questions, concerns, or additional information that you need as part of the review process.

Best regards,

Henrik Bäcker