

Peer Review Comments

Article information: <https://dx.doi.org/10.21037/aoj-23-25>

Review Comments

Comment 1: Line 38: *a wide variety of symptoms; : “experiencing” doesn’t fit the rest of the sentence syntax and some may take exception with dislocation being considered a symptom, consider rewording

Reply 1: Thank you for your identification of this grammatical error as well as rewording suggestion. The sentence has been rewritten for clarification, as below.

Changes in the text: “Patient presentation is variable, ranging widely from vague posterior shoulder pain to acute traumatic posterior glenohumeral dislocation.” (lines 37-39).

Comment 2: Line 43: Bipolar bone loss *involves (delete “is”)

Reply 2: Deleted.

Changes in the text: “Bipolar bone loss involves concomitant...” (lines 44-45)

Comment 3: Line 61: complex nature *of posterior...

Reply 3: Added.

Changes in the text: “Given the challenging and complex nature of posterior glenohumeral instability...” (line 63)

Comment 4: The authors could consider adding in figures of their posterior approach, dissection, retractor placement etc as I think this would really boost this section up

Reply 4: Thank you for the suggestion. However, while we do have access to such images, they’ve already been published elsewhere and at this time we are unable to reproduce them; as such, we are not going to be able to include such images.

Changes in the text: N/A

Comment 5: Line 124: “Upper cortex”, Question, won’t the upper edge of the iliac crest be “posterior” (the screw heads sit on it), the inner table will be facing lateral (ie toward the joint), cancellous bone will abut the glenoid and the outer table/external bone will face “medial”?

Reply 5: Thank you for highlighting this confusing point in our text. We have changed the text accordingly.

Changes in the text: Lines 130-132: The graft is then prepared and adapted to the posterior aspect of the glenoid, with the cancellous side facing anteriorly, the upper edge of the iliac crest will rest posteriorly, and the inner table will face towards the joint. The graft should extend approximately 5-10 mm over the posterior glenoid rim.

Comment 6: Line 157: 3.2 mm drill seems dependent on the system being used.

Reply 6: We have removed this and replaced with “pilot hole”

Changes in the text: Lines 137: the pin and bone block can be removed to allow for a pilot hole to be drilled in the glenoid pin hole, maintaining the same orientation

Comment 7: Line 157: “n of 5...”, I would write it as “(n=5)” right after scapular spine bone block, or just state, with 5 patients undergoing this procedure.

Reply 7: Thank you for this suggestion, and we have simplified the sentence.

Changes in the text: “(n=5)” was added after “operatively” to specify that 5 patients in this study underwent operative management with scapular spine bone block (lines 158-159).

Comment 8: Line 165: Kouvalchouck et al.*

Reply 8: Added “et al.”

Changes in the text: “...as described originally by Kouvalchouck et al.” (line 167).

Comment 9: Line 259: described *by Scott and modified...

Reply 9: Changed “but” to “by.”

Changes in the text: “initially described by Scott and modified by Waltenspul...” (line 261).

Comment 10: Line 261: deleted “is made” at the end of the sentence

Reply 10: Deleted.

Changes in the text: “An approximately 10-12 cm incision is made posteriorly, starting at the posterior acromial edge and aiming towards to the inferior border of the scapula.” (line 262-263).

Comment 11: Line 268: glenoid base*

Reply 11: Grammatical adjustment made.

Changes in the text: “...placed parallel to the glenoid base and aiming towards...” (line 270).

Comment 12: Line 448: Are there listed authors for citation 8?

Reply 12: Thank you for noticing this mistake—appropriate authorship has been added to this citation.

Changes in the text: New citation 8 (line 450-451): Dickens, Jonathan F., Owens, Brett D.: *Shoulder Instability in the Athlete: management and surgical techniques for optimized return to play*. (SLACK Incorporated: 2021).

Comment 13: Line 473: Check citation 17

Reply 13: Thank you for noticing that this citation was misrepresented—it has been appropriately formatted.

Changes in the text: New citation 17 (line 475-478). Rocher, H.: Butée glénoïdienne postérieure par greffon costal dans une subluxation habituelle de l'épaule due à une paralysie obstétricale [Posterior glenoid bone block by costal (rib) graft in a repetitive subluxation of the shoulder due to obstetrical palsy]. *Paris Chir* 1931;33-43.

Comment 14: AOJ's instructions for authors states it should be an unstructured abstract for a review, whereas a scoping review has the subsections as it is currently written.

Reply 14: Thank you for this reminder of the journal's guidelines. The abstract has been rewritten/reformatted as necessary.

Changes in the text: Posterior glenohumeral instability is an increasingly common and challenging orthopaedic problem. Bone loss on the glenoid rim or humeral head adds complexity to effective treatment strategies. The objective of the current study was to report contemporary

surgical approaches, techniques, and outcomes to guide clinical decision making, via a comprehensive review of the available literature.

Open osteoarticular augmentation procedures have emerged as a popular option to treat posterior bone loss, with bony auto- and allografts from a variety of donor sites including iliac crest, scapular spine, acromion, distal clavicle, and distal tibia. The combination of glenoid retroversion and bone loss can be addressed with posterior glenoid opening wedge osteotomy. Bipolar bone loss may be addressed with a combination of the aforementioned techniques, with reverse remplissage, a modified McLaughlin procedure, or various arthroplasty-related options. Although short and mid-term outcomes are dependable, studies reporting long-term outcomes are rare.

Although there is no current consensus regarding most effective treatment of posterior shoulder instability in the setting of bone loss, open surgical techniques continue to evolve. Further research is necessary to determine long-term effectiveness of these surgical options.

Comment 15: “Open Posterior Bone Loss...: Treatment” implies its an open injury rather than “Open Treatment of Posterior Bone Loss...”

Reply 15: Thank you for the suggestion, and the authors agree that this more clearly and accurately represents the topic. The title has been updated to reflect this.

Changes in the text: New title (line 1): Open Treatment of Posterior Glenoid Bone Loss and Bipolar Bone Loss

Comment 16: Figure 5: Define abbreviations in each figure (RSHL, CT)

Reply 16: Thank you for noticing this mistake. This issue has been adjusted in Frigure 5 as noted, but also in other figures throughout the paper.

Changes in the text: Line 195 (defined CT), line 241 (defined CT), line 285 (defined CT), line 371 (defined CT), line 373-374 (defined RHSL).