

Response to a comment regarding “Reconstruction of posterior glenoid deficiency using distal tibial osteoarticular allograft”

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To the Editor,

We would like to thank Drs. Frank, Provencher, and Romeo for their interest and comments on our article titled “Reconstruction of Posterior Glenoid Deficiency Using Distal Tibial Osteoarticular Allograft”. Several important questions were raised, and we are thankful to have the opportunity to provide some clarification and expand upon the published manuscript.

Firstly, we would like to thank the authors for noting our unfortunate oversight regarding the location of allograft procurement and agree that additional procedural description would be beneficial to readers. For clarification, the *lateral* 1/3 of the distal tibial allograft was utilized for the posterior glenoid reconstructions as the referenced figure appropriately depicts but which was incorrectly captioned. We also agree that currently available evidence would support the use of the lateral 1/3rd of the tibia as compared

to the medial segment. We appreciate the opportunity to clarify this oversight.

As the authors note, and as referenced within the present manuscript, Provencher et al. [1, 2] first described the use of distal tibial osteoarticular allograft (DTA) for the management of anterior glenoid bone deficiency. The DTA that was described in this manuscript is technically similar to that outlined in the original work of Provencher et al., except that it was used posteriorly. In contrast to the original description, however, the current series reports the use of DTA for reconstruction of the posterior glenoid.

Regarding the authors’ second query, this represents a difference from the procedure initially described by Provencher et al. and, to the best of our knowledge, had not been previously reported. While we have found DTA useful for anterior glenoid defects under certain circumstances, there are local options anteriorly (coracoid) that are not available when treating posterior glenoid bone deficiencies. Longer duration follow-up in the larger numbers of patients is necessary to establish clinical equivalence to traditional autograft reconstructive procedures prior to widespread adoption for anterior deficiencies. DTA may in fact be optimally suited for posterior bone deficiencies given the lack of effective local posterior glenoid autograft options; yet allograft incorporation concerns still persist. To this end, it is worth noting that the present study reports a minimum follow-up of 2 years with good bony incorporation and no recurrent instability. Since this article was published, none of the grafts have failed, although one did resorb and require screw removal, although the remaining bone was solidly fused and the cartilage remained intact. We believe this is likely in response to the loading according to the Wolff’s law. The results from our study, in addition to the three grafts reported by Provencher et al. [1, 2], suggest DTA is clinically efficacious and early graft incorporation appears promising.

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Drs. Provencher, Romeo, and colleagues should certainly be commended for pioneering the use of DTA for glenoid reconstruction. It provides an additional osteoarticular source of bone capable of restoring both glenoid bone stock and articular cartilage.

- recurrent glenohumeral instability with glenoid deficiency using a distal tibia allograft. *Arthroscopy* 25(4):446–452
2. Provencher MT, LeClere LE, Ghodadra N, Solomon DJ (2010) Postsurgical glenohumeral anchor arthropathy treated with a fresh distal tibia allograft to the glenoid and a fresh allograft to the humeral head. *J Shoulder Elbow Surg* 19(6):e6–e11

References

1. Provencher MT, Ghodadra N, LeClere L, Solomon DJ, Romeo AA (2009) Anatomic osteochondral glenoid reconstruction for

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