ask the experts

Section Editor: John D. Kelly IV, MD
Each month, a panel of key opinion leaders in the field of orthopedics will discuss how they would manage and treat a difficult case presentation.

Recurrent Anterior Dislocation

A 20-year-old, right-hand–dominant man had recurrent anterior dislocation of the shoulder that failed arthroscopic fixation. T2-weighted coronal (A) and sagittal (B) and T1-weighted sagittal (C, D) and coronal (E) magnetic resonance images are provided. What would you do?

Gerald Williams, MD, The Rothman Institute, Thomas Jefferson University, Philadelphia, Pennsylvania

Robert A. Arciero, MD, University of Connecticut Health Center, Farmington, Connecticut

Gerald Williams, MD: In discussing potential treatment options for this case, I will make a few assumptions: the initial surgery was performed well (although it looks like only 2 anchors were used), the patient was compliant and does not have a seizure disorder, and the instability is unidirectionally anterior. The magnetic resonance imaging findings include a Bankart lesion, a small (5-mm) Hill-Sachs defect, and mild glenoid rim flattening.

Options I would consider include revision arthroscopic Bankart with remplissage, open Bankart, or open Latarjet with Bankart repair. Although the glenoid deficiency and Hill-Sachs defect are both mild, the 2 together increase
the recurrence rate with an anterior soft tissue procedure alone. If the glenoid rim were normal, I would give the patient the choice between arthroscopic Bankart with remplissage or open Bankart repair, and I would be leaning toward an open Bankart. In this particular patient, I would favor an open Latarjet with Bankart repair. In a noncontact athlete with these findings, an open Bankart would be a close second choice.

**Robert A. Arciero, MD:** In this case, we have a 20-year-old man with a failed arthroscopic stabilization procedure. There are a number of historical and physical examination features I would want to evaluate as part of the decision-making process.

Is he a collision or contact athlete? A male collision athlete younger than 20 years has an increased risk of failure with an arthroscopic Bankart repair.\(^1\) I would want to know the circumstances of the failure. What was the mechanism of injury? Is he having subluxation or dislocations? Has he required a manual reduction for any recurrence? Has he had instability events in sleep?

The physical examination is critical, and most important is the apprehension test. If he has apprehension at mid-range or lower angles of abduction, this would indicate bone loss as a distinct pathologic entity that may have given rise to failure. In this particular case, the magnetic resonance imaging has some interesting findings. First, it appears the arthroscopic procedure was done well; that is, the anchor location is in the inferior half of the glenoid, addressing the inferior glenohumeral ligament in its anatomic location. Why the failure?

The imaging demonstrates a combined bone loss pattern. The T1-weighted sagittal and coronal images of the humeral head show a broad-based small- to moderate-sized Hill-Sachs lesion. Although we have some idea what a critical loss of bone is required to compromise a soft tissue Bankart repair on the glenoid side, we do not understand the effects of a combined lesion.

There are also 2 interesting findings on the glenoid side. The axial image shows not only an element of bone loss along the antero inferior glenoid but also chondral wear in this location, so the effects of glenoid bone loss and chondral thickness or chondropenia could be much worse than anticipated. Second, on the sagittal T1 image of the glenoid, at the inferiormost anchor location, it appears there may be a small rim fracture or an area where the glenoid bone has broken away at the inferior anchor, accentuating the bone loss in this area.

For these reasons, I believe this patient would be best served with an open revision. The results of arthroscopic revision in this setting have not been great. An open Bankart would be a reasonable choice as described by Pagnani\(^2\) and would be applicable to a 20-year-old male athlete. If this young man were a collision athlete, I would strongly consider an open Latarjet with a Bankart repair.\(^{3,4}\) This modification requires that the capsule is incised medial to perform the arthroscopy and then, after performing the coracoid transfer as described by Latarjet,\(^4\) the medial edge of the capsule is repaired along the glenoid rim with suture anchors. This makes the coracoid transfer extracapsularly.

**REFERENCES**


---

The authors have no relevant financial relationships to disclose.

Correspondence should be addressed to: John D, Kelly IV MD, Sports Medicine, University of Pennsylvania, 235 S 33rd St, Philadelphia, PA 19104 (johndkellyiv@aol.com).

doi: 10.3928/01477447-20131021-09