Anterior Capsule Reconstruction (ACR) for Subscapularis Insufficiency after Total Shoulder Arthroplasty

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Background:
The incidence of total shoulder arthroplasty (TSA) continues to rise. A well-recognized mode of failure is subscapularis insufficiency. The subscapularis plays a critical role in glenohumeral stability and joint kinematics. Treatment options include nonoperative management with physical therapy, activity modification, and non-steroidal anti-inflammatories (NSAIDs), as well as revision to reverse total shoulder arthroplasty and tendon transfer. More recently, anterior capsule reconstruction (ACR) has been described as a more anatomic reconstruction in comparison to tendon transfer, with reduced risk of neurologic injury and absence of donor site morbidity.

Purpose:
This video overview and case presentation demonstrates ACR with fascia lata allograft in the setting of subscapularis insufficiency after TSA.

Methods:
The examination, diagnosis, and treatment options for subscapularis insufficiency after TSA are reviewed. A case of a 55-year-old male with a symptomatic subscapularis tear after TSA is presented. This injury occurred while lifting a suitcase 6 months after TSA and resulted in glenohumeral subluxation and limited active internal rotation of the shoulder. After failure of non-operative treatment and a thorough discussion of risks, benefits and prognosis, the patient elected to proceed with ACR reconstruction with fascia lata allograft to improve his functional status.

Results:
Glenohumeral joint subluxation was restored intraoperatively. Post-operative clinical outcome showed good restoration of range of motion and stability.

Conclusion:
ACR reconstruction with fascia latal allograft is may be a viable surgical option for subscapularis insufficiency after TSA. While outcomes of ACR in this setting are largely unknown, we report satisfactory functional outcomes and high patient satisfaction. Appropriate patient selection and adherence to post-operative rehabilitation are crucial for optimal outcomes.