Subscapularis tendon interposition after anterior shoulder dislocation and reduction

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Accepted 25 September 2014

DESCRIPTION

A 51-year-old right-hand-dominant farmer fell 2.5 m off his roof, landing on his right shoulder. He had severe pain and gross deformity of the joint and was driven by his wife to the emergency department of our institution where he was diagnosed with an anterior dislocation of his right shoulder ([figure 1A](#)). This was reduced with great difficulty in the emergency department, requiring several sedations. At 3-week follow-up he reported persistent pain and weakness in the shoulder, and was found to have very restricted active range of movement. Radiographs showed the humeral head to be slightly superiorly subluxed ([figure 1B](#)). MRI showed a full-thickness tear in the subscapularis tendon with interposition of the tendon within the glenohumeral joint, posterior to the humeral head ([figure 1C](#)). There was also a full-thickness, full-width supraspinatus tear. At surgical exploration, most of the subscapularis tendon was absent from the anterior aspect of the humeral head and found to be prolapsed into the joint, lying posterior to the humeral head ([figure 1D](#)). The prolapsed tendon was retrieved with difficulty and reattached

to the lesser tuberosity with anchors and sutures ([figure 1E](#)). The supraspinatus tear was irreparable, with tendon retraction to the glenoid. At 6-month follow-up he was pain-free but still had significant restriction of movement, attributed to his irreparable rotator cuff tear.

Learning points

- ▶ Subscapularis interposition in the glenohumeral joint is a rare complication of shoulder dislocation and reduction.^{1–3}
- ▶ It should be suspected in cases of irreducible shoulder dislocations.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

Figure 1 Anteroposterior radiographs showing anterior dislocation of the right shoulder on presentation (A) and slight superior subluxation of the right humeral head postreduction (B). Axial fat-suppressed proton density-weighted MRI (C) showing a full-thickness tear in the subscapularis tendon with interposition of the tendon within the glenohumeral joint, posterior to the humeral head. Intraoperative photographs showing the torn subscapularis tendon prolapsing behind the humeral head (D) and the retrieved subscapularis tendon with stay-sutures (E).

To cite: Bruce-Brand RA, O'Connor BR, Quinn M, et al. *BMJ Case Rep*. Published online: [please include Day Month Year] doi:10.1136/bcr-2014-206320

REFERENCES

- 1 Connolly S, Ritchie D, Sinopidis C. Irreducible anterior dislocation of the shoulder due to soft tissue interposition of subscapularis tendon. *Skeletal Radiol* 2008;37:63–5.
- 2 Bridle SH, Ferris BD. Irreducible acute anterior dislocation of the shoulder: interposed subscapularis. *J Bone Joint Surg Br* 2010;72:1078–9.
- 3 Miles ZE, Gordon RJ, Wilkinson MPR. Irreducible traumatic anterior shoulder dislocation secondary to both subscapularis and long head of biceps tendon interposition—a case report. *Open J Orthop* 2012;2:51–5.

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