ROTATOR CUFF TEAR AND ACROMIOCLAVICULAR JOINT CYST

A. LIZAUR UTRILLA, L. MARCO GOMEZ, A. PEREZ AZNAR, R. CEBRIAN GOMEZ

A 58-year-old man is described who developed a subcutaneous synovial cyst over the acromioclavicular joint. The cyst developed in association with a massive tear of the rotator cuff and the long head of the biceps, which was demonstrated by arthrography. A loose fragment of the acromion was found intraoperatively. The patient was treated surgically by a combination of excision of the cyst, acromioplasty, removal of the loose acromial fragment, and a duramater allograft to close the rotator cuff defect. The functional result was unsatisfactory.

Keywords : shoulder ; acromioclavicular joint ; synovial cyst ; rotator cuff tear.

Mots-clés : épaule ; articulation acromio-claviculaire ; kyste synovial ; coiffe des rotateurs.

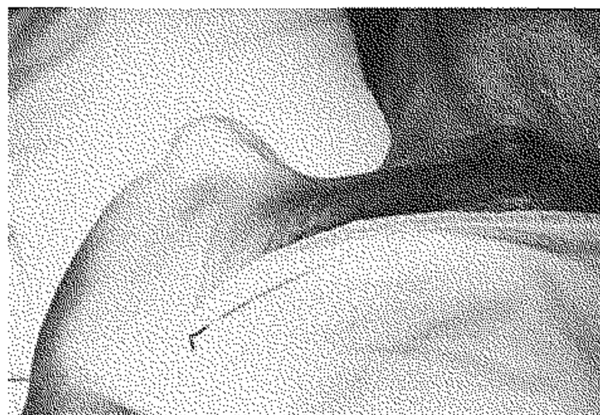

Fig. 1. — Subcutaneous cyst overlying the acromioclavicular joint.

INTRODUCTION

A synovial cyst of the acromioclavicular (AC) joint is a rare lesion. Since it was first described in 1984 by Burns and Zuirbulis (1), only 13 other cases have been reported (2,3,4,5), to our knowledge. We report on a patient in whom a subcutaneous cyst over the AC joint developed following a large defect of the rotator cuff.

CASE REPORT

A 58-year-old man presented with a recurrent cyst over the AC joint of the right dominant extremity of 7 months' duration (fig. 1). He had had complaints in the right shoulder for 14 years as a result of a nondisplaced fracture of the scapular neck, which had been treated conservatively. He had had several aspirations and an attempted operative excision of the cyst.

Physical examination revealed a soft mass about 6 cm in diameter. Active motion of the shoulder was limited by weakness of elevation and external rotation. There was atrophy of the external rotators. Electromyography did not reveal any nerve lesions.

Radiographs showed degenerative changes in both the glenohumeral and AC joints, with indirect signs of chronic impingement (superior migration of the humeral head, spurs on the under surface of the acromion and the AC joint, and sclerosis of the greater tuberosity of the humerus). Ultrasonography showed no pathologic signs. Magnetic resonance imaging of the shoulder showed signs

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compatible with a diagnosis of a rotator cuff tear. An arthrogram confirmed the tear of the rotator cuff as well as of the long head of the biceps, with contrast medium within the glenohumeral joint, the subacromial bursa, the AC joint and into the subcutaneous cyst over the AC joint (fig. 2).

Fig. 2. — Shoulder arthrogram demonstrating continuity between the glenohumeral joint and the subcutaneous cyst over the acromioclavicular joint.

The patient was treated surgically. A massive tear of the rotator cuff was found involving all the tendons (supraspinatus, infraspinatus and subscapularis) together with a rupture of the long tendon of the biceps. There was a loose fragment of the acromion without evidence of recent trauma.

Surgical management included a combination of excision of the cyst, removal of the loose fragment of the acromion, inferior acromioplasty and resection of the coracoacromial ligament. The massive defect of the rotator cuff was closed by means of an allograft (Lyodura, Braun and Dexon : allogeneic lyophilized dura mater). Spurs were removed ; the long tendon of the biceps was not repaired. Early postoperative rehabilitation was performed.

The functional result was unsatisfactory owing to marked restriction of active motion of the shoulder (elevation of 65° and external rotation of 20°), but there was no pain in the shoulder. There was no recurrence of the subcutaneous synovial cyst after 2 years.

DISCUSSION

The occurrence of a subcutaneous synovial cyst of the AC joint as the presenting sign of a tear of the rotator cuff is very infrequent (3). Craig (2) believed that an AC cyst is formed when glenohumeral fluid leaks through the torn rotator cuff into a degenerated AC joint.

In our case, there was a history of trauma and a loose fragment of the acromion, which could have predisposed to subacromial impingement and rotator cuff tear.

Treatment of an AC synovial cyst associated with massive rupture of the rotator cuff has been a matter of debate. Burns and Zuirbulis (1) proposed excision of the cyst alone and Nardini (4) its debridement, but we believe that removal of the cyst alone must be avoided because the condition tends to recur if the cuff tear is not repaired. Craig (2) emphasized the importance of eradication of the cyst in addition to cuff repair and acromioplasty.

Postacchini *et al.* (5) proposed resection of the lateral end of the clavicle associated with an excision of the cyst when the cuff tear is so large that it cannot be repaired, while Groh *et al.* (3) proposed hemiarthroplasty of the shoulder.

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SAMENVATTING

A. LIZAUR UTRILLA, L. MARCO GOMEZ, A. PEREZ AZNAR, R. CEBRIAN GOMEZ. Scheur in de rotator cuff en acromio-claviculair ganglion.

De auteurs rapporteren het geval van een 58-jarige patiënt, met een ganglion over het acromio-claviculair gewricht. De cyste vorming ontwikkelde zich bij massieve scheur in de rotator cuff en de lange bicepspees, en is goed gedocumenteerd met een arthrografie. Toevallig werd er tijdens de exploratie een los botfragment van het acromion gevonden. Er gebeurde een chirurgische behandeling met excisie van het ganglion, extirpatie van het acromiaal fragment, acromioplastie, en een homoente van dura mater om het defect van de rotator cuff te sluiten. Het eindresultaat was niet bemoedigend.

RÉSUMÉ

A. LIZAUR UTRILLA, L. MARCO GOMEZ, A. PEREZ AZNAR, R. CEBRIAN GOMEZ. Rupture de la coiffe des rotateurs et kyste acromio-claviculaire.

Les auteurs rapportent le cas d'un homme de 58 ans présentant un kyste synovial sous-cutané en regard de l'articulation acromio-claviculaire. Ce kyste associé à une rupture massive de la coiffe des rotateurs et de la longue portion du biceps a été documenté par arthrographie. De plus on a découvert durant l'intervention un fragment isolé de l'acromion. Le patient a été traité chirurgicalement par excision du kyste, excision du fragment acromial, acromioplastie et allogreffe de duremère pour fermer la coiffe des rotateurs. Le résultat fonctionnel final n'est pas satisfaisant.