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Case Report

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A Rare Cause of Shoulder Pain: Ganglion Cyst of the Acromioclavicular Joint

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ABSTRACT

Ganglion cysts generally form after repeated microtrauma to the dorsum of the wrist. They are gel-filled cystic formations that may be rooted in the joint capsule, tendon, or tendon sheath. Ganglion cysts rooted in the shoulder and acromioclavicular joint are rare. We report a patient who presented with pain in the right shoulder, who was diagnosed with atypical localization of a ganglion cyst after clinical and radiological investigation. Post-operatively, histopathology confirmed the diagnosis. The case is presented along with the surgical results.

KEYWORDS: Shoulder; Acromioclavicular joint; Pain; Tumor; Ganglion cyst.

INTRODUCTION

A ganglion cyst (GC) may have an acute or chronic onset and is generally related to repeated microtrauma of the wrist dorsum.[1-4] The differential diagnosis of shoulder pain and functional disorders includes shoulder compression syndromes (impingement), glenohumeral instability, rotator cuff diseases, tendonitis, adhesive capsulitis, trauma, cervical radiculopathies, neoplasms, degenerative diseases, acromioclavicular (AC) joint separation, arthritic variations, crystal arthropathies (including Milwaukee's shoulder) and atypical emplacement of a GC.[1,2,5-8] This paper reports a patient with shoulder pain due to a GC in the AC joint who presented to our clinic along with the post-operative evaluation.

CASE REPORT

A 65-year-old man presented to our clinic complaining of a slow-growing swelling and right shoulder pain that began one year previously. Physical examination showed a 10×8×5 cm soft, slightly painful mass above the right AC joint, slightly limiting shoulder range of motion (ROM) (Figure 1). A direct x-ray showed arthritic changes in the right AC joint (Figure 2). Magnetic resonance imaging (MRI) showed a 10×8×5 cm mass related to the right AC joint, that was tentatively diagnosed as a GC, and partial rupture of the supraspinatus muscle (Figure 3). The patient's complaint persisted despite three months of physical therapy and surgery was planned. Under general anesthesia in the chaise longue position, the mass on the right AC joint was entered with a fish-mouth incision (Figure 4). The mass was observed to be connected to the AC joint and an excision biopsy was performed. Histopathology showed that the mass was consistent with GC. There was no recurrence at the 1.5-year follow-up. His pain resolved and ROM was normal despite partial rupture of the supraspinatus.

Figure 1: Clinical demonstration of patient.

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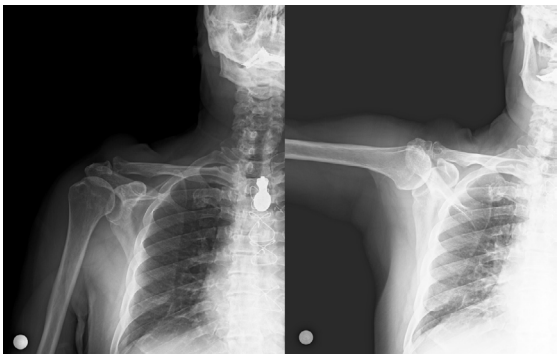

Figure 2: Radiography imaging of patient.

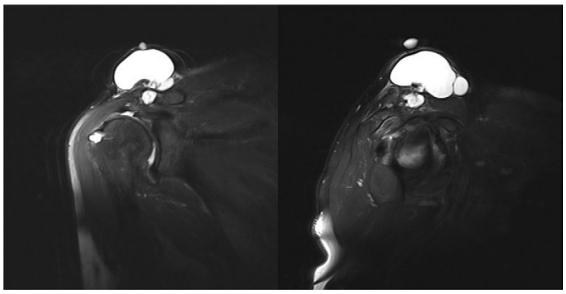

Figure 3: Magnetic resonance imaging of patient.

Figure 4: Operation macroscopic imaging.

DISCUSSION

Ganglion cysts occur most commonly at the hand and wrist and are only very rarely observed in the shoulder region and bone.[2,3,6,7] The incidence is greatest in women 30-50 years of age. The etiology of GC is not fully known, but joint pathology and microtrauma are thought to contribute.[8,9] Our patient was a laborer who used his arm very frequently and often experienced minor trauma. He presented to our clinic complaining of shoulder pain and swelling.

The most widely accepted theory for the pathogenesis of a GC in the AC joint is fluid spreading around the joint in the rotator cuff in conjunction with labrum tears.[2,6,10-12] Schroder et al[13] and Youmet al[14] reported that treating the labrum pathology led to regression of the cyst without surgical intervention. Tung et al[15] investigated the causes of shoulder pain and identified a paralabral GC visible on MRI imaging in 2.3% of their cases. In our case, an excision biopsy was performed, the shoulder pain resolved, and the shoulder ROM improved.

After total excision, a GC may recur in the same location, especially in cases where the joint capsule in the pedicle isnot sutured with appropriate tension.[3,16-18] In our case, the GC was excised using an open approach and the mass was observed to be connected to the AC joint. At the 1.5-year follow-up, the patient's pain was improved and the shoulder ROM had increased. There was no recurrence of the AC joint cyst.

CONCLUSION

Although GCs are rarely observed in the shoulder region, they may cause pain and restrict ROM. Surgical excision may improve symptoms and function with very low rate of recurrence.

CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest.

CONSENT

The patient has provided written permission for the publication of this case details.

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