



Acromioclavicular Cyst with Geyser Sign – An Uncommon Presentation of Massive Rotator Cuff Tear

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Clinical image description

Woman, 83-year-old, with known chronic rotator cuff rupture in the left shoulder, presented at our department with a tumefaction over the Acromioclavicular Joint (ACJ) (Figure 1) that appeared 3 months before. Physical examination revealed a soft, rounded and slightly compressible nodule, without inflammatory signs and she had restriction on active range of movement of the shoulder which elicited pain. An X-Ray was done 6 months before in which was notorious superior humeral head displacement and signs of arthropathy (Figure 2). An MRI (Figure 3) was then requested and it showed rotator Cuff Tear Arthropathy (CTA), with superior humeral head displacement and “Geyser sign” in which joint fluid from the Glenohumeral Joint (GHJ) crosses the (ACJ) to form a supraclavicular collection [2].

Acromioclavicular cysts are rare and usually associated with CTA. Massive cuff tear leads to GHJ mechanical instability, increased production of intra-articular synovial fluid, displacement of the humeral head leading to deterioration of the inferior ACJ capsule and consequently synovial fluid can escape through the cuff defect, across the subacromial bursa and decompresses superiorly through the degenerated ACJ forming this type of cyst [3]. Considering that this patient had significant functional shoulder limitations, restriction on active range of motion and an X-Ray suggesting rotator cuff arthropathy, this type of cyst was the most probable diagnosis and was confirmed in the MRI. Because of its high recurrence [1] needle aspiration was not performed and the patient was referred to surgical removal.



Acromioclavicular cysts may pose an opportunity to diagnosis this uncommon complication of rotator cuff tear and degenerative changes in the GHJ. Imaging workup is a valuable complementary approach, particularly MRI to support this diagnosis and exclude noncystic soft-tissue masses. Clinicians should be aware of this condition in order to timely provide suitable treatment to the main etiology and its complications.



Figure 1: Subcutaneous tumefaction of the left shoulder with 4x3 cm dimension.



Figure 2: Left shoulder X – Ray (AP view) performed 6 months before the initial visit showing superior migration of the humeral head and degenerative changes in the glenohumeral joint.

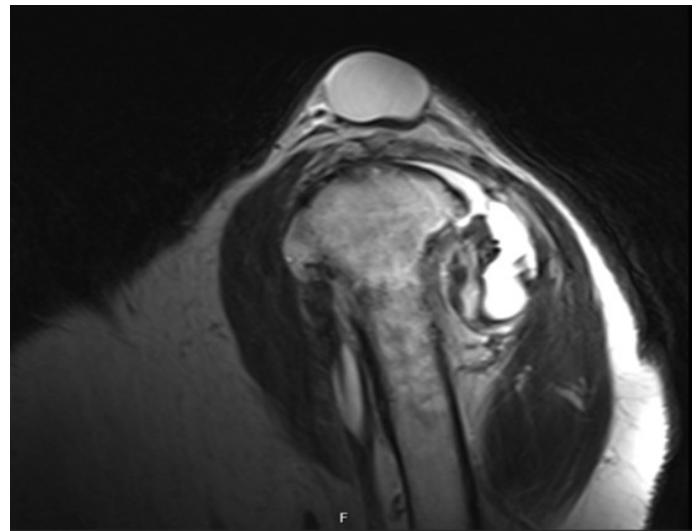


Figure 3: Sagittal cut of left shoulder MRI (T2w TSE) showing signs of cuff tear arthropathy and acromioclavicular cyst.

References

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