Synovial chondromatosis of the shoulder

Clinical History:

A 28 year old male patient with acute unilateral right shoulder pain.

Imaging Findings:

This 28-year-old male patient presented with an acute painful right shoulder without preceding trauma. Radiography revealed extensive calcifications in peri- and/or intraarticular soft tissue. Subsequently MRI was performed which confirmed synovial effusion with multiple intrasynovial chondromas.

Discussion:

Synovial chondromatosis (SC) is considered to be caused by chondroid metaplasia of the synovial membrane. Large joints such as the knee an hip are most commonly involved. In literature no exact numbers on the incidence of glenohumeral SC are given. The general conclusion is that SC of the glenohumeral joint is rare. The etiology of the disease is still unknown. It may be associated with impingement syndrome, as was the case in this patient with extensive chondromas in the subcoracoid bursa. MR imaging is a valuable tool in detecting SC at an early phase and estimating the intrasynovial extent of the diseaese. Shoulder arthroscopy represents elegant treatment option for removing the condromas and performing a partial synovectomy. In this patient it might be insufficient because of involvement of the bicipital tendon sheath.

Differential Diagnosis List: Synovial chondromatosis of the shoulder

Final Diagnosis: Synovial chondromatosis of the shoulder

References:

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Synovial chondromatosis of the glenohumeral joint: a rare condition.

Demirham M, Eralp L, Atalar AC
Synovial chondromatosis of the subcoracoid bursa.
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McFarland EG, Neira CA
Figure 1

a

Description: Extensive calcifications in subcoracoid bursa and subscapular recess Origin:

b

Description: Note calcifications in the bicipital tendon sheath Origin:
Figure 2

Description: Fat-suppressed proton density weighted image axial plane shows synovial effusion with numerous intraluminal chondromas in subscapular recess. Origin:

Description: Same sequence with chondromas in bicipital tendon. Origin:
Figure 3

Description: T2 weighted image in coronal plane shows synovial effusion with intraluminal chondromas

Origin: