

Chondromatosis in Subacromial Bursae

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Chondromatosis is a rare entity characterized by multiple osseocartilaginous nodules that are believed to grow out from the synovial tissue as a result of cartilaginous metaplasia. We describe a rare case of subacromial bursal chondromatosis in a patient under our clinical care for rheumatoid arthritis (RA).

A 51-year-old woman with RA for 6 years presented with local swelling and heat in her left shoulder. On examination, the left shoulder was warm and swollen and active flexion and abduction was limited. Complete blood count, urinalysis, blood chemistry, immunoglobulins, protein electrophoresis, and C3–C4 measurements were within normal limits, while C-reactive protein was 7.63 g/dl and erythrocyte sedimentation rate was 42 mm/h. Shoulder radiograph showed soft tissue swelling and cysts in the humeral head. Ultrasonography showed fluid with internal echogenous bodies in the subdeltoid-subacromial bursa (Figure 1) and subdeltoid-subacromial bursitis, and partial rupture of the supraspinatus tendon. A magnetic resonance image (MRI) revealed chondromatosis in the subacromial bursa, impingement syndrome in the rotator cuff, and partial rupture due to chondromatosis (Figure 2). She underwent surgery, and pathological examination reported chronic nonspecific synovitis and secondary chondromatosis.

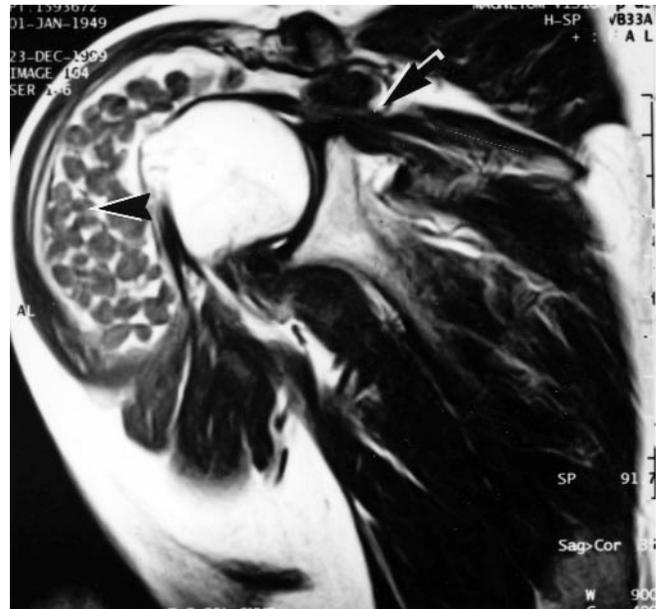


Figure 2. MRI of the left shoulder showing synovial chondromatosis in the subacromial bursa (arrowhead), impingement syndrome in the rotator cuff, and partial rupture (arrow).

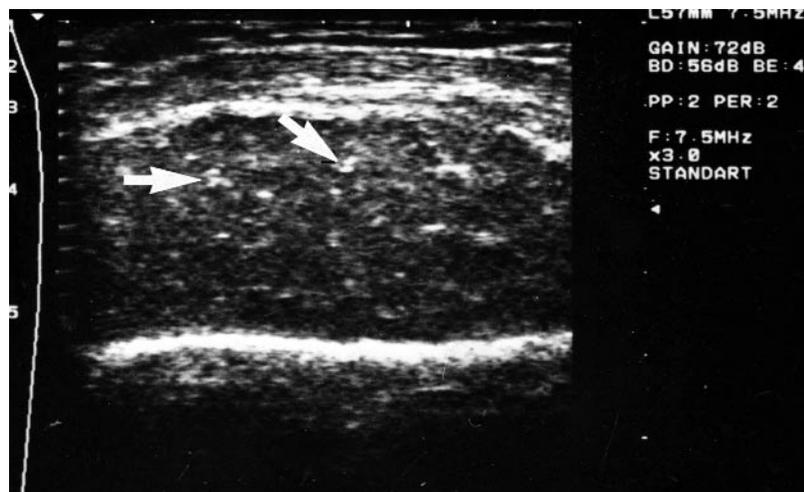


Figure 1. Fluid with internal echogenous bodies in subdeltoid-subacromial bursa (arrows).

Chondromatosis of subacromial bursa was first reported by Milgram and Hadesman¹. It may occur as a primary lesion or secondary to osteoarthritis, avascular necrosis, trauma, osteochondritis desiccans, RA, or tuberculosis². RA and infectious subacromial bursitis might have started the process of subacromial bursal chondromatosis in this patient. It usually presents with symptoms of pain, swelling, and limitation of joint range of motion. Physical examination may reveal tenderness, effusion, and a palpable mass³. MRI can be particularly helpful for diagnosis during early phases⁴. Close followup is necessary and surgical treatment should also be considered for synovial chondromatosis because there is a potential risk for development of synovial chondrosarcoma from these lesions⁵.

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