Calcifying chondromatosis of the shoulder

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CLINICAL HISTORY

A 41-year-old man complained of inconsistent episodes of right shoulder pain for four weeks. He did not remember experiencing trauma before the first expression of symptoms. The patient’s medical history did not document prior disturbances. The orthopedic surgeon suspected the presence of impingement syndrome on the basis of an initial physical examination.

DIAGNOSIS

MR findings revealed calcifying chondromatosis with evidence of residues of prior tendinitis of the rotator cuff insertions and secondary arthrosis indicating the early involvement of the subchondral bone.

FINDINGS

MRI shows (A) an inflammation of the humeroscapular joint with involvement of the subcoracoid bursa, deformation of the glenoid labrum (open arrows) and effusion (deltoid arrows). In the effusion, T1- (B) and T2-weighted (C) imaging characterized multiple structures of up to 20 mm (feathered arrows). After Gd-DTPA injection (double line arrows), we found an enhancement of the capsule (D), especially at the insertion of the capsule and the bursa wall. Contrast enhancement of the nodular structures also appeared (stars). Cystic lesions were noted under the insertions of the supraspinatus and infraspinatus tendons without involvement of the tendons (slender arrows). Further cysts were seen in the glenoid cavity (slender arrows) and an asymmetric humeroscapular joint with initial erosions at the inferior compartment (short open arrows) was observed.

DIFFERENTIAL DIAGNOSIS

Chondrocalcinosis, chondromatosis, villonodular synovitis (iron inclusion), synovialoma, extraossal chondrosarcoma.

DISCUSSION

A chondromatosis of the shoulder, especially a calcifying type, is rare. Knowing about possible coincidence findings—such as involvement of the bursa or secondary arthrosis, or a differential diagnosis that includes malignancy—leads rather easily to the correct diagnosis and therapy. Contrast-enhanced MRI is the most useful tool for the diagnosis. CT may help to detect calcifications, particularly if they are of minimal density.

Development of the underlying pathology in this case preceded the expression of physical symptoms. However, the patient reported considerable pain as the condition reached an advanced state in the four weeks before diagnosis. In a different case, the patient reported no pain for a 25-mm infrapatellar chondroma.

BIBLIOGRAPHY


Disclosures:

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