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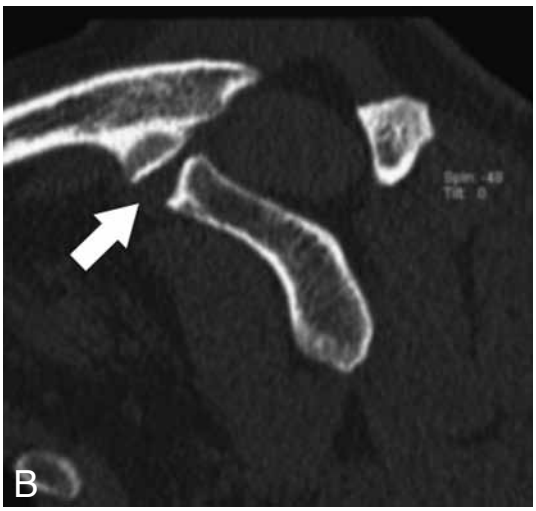
IMAGES IN CLINICAL RADIOLOGY



Coracoclavicular joint with shoulder pain

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A 53-year old man presented with chronic left shoulder pain, unresponsive to anti-inflammatory treatment. There was no history of injury or chronic overuse. Radiography showed degenerative changes of the acromioclavicular joint, an acromion type 1, and the presence of coracoclavicular joint. CT scan confirmed the presence of a joint between the clavicle and the coracoid process with degenerative changes (Fig. A, B).

Comment

There are many disorders that may cause shoulder pain. Most of these entities are accompanied by typical signs and symptoms. In our patient, the coracoclavicular joint caused shoulder pain. A coracoclavicular joint is a diarthrotic synovial joint that occasionally is present between the conoid tubercle of the clavicle and the superior surface of the horizontal part of the coracoid process. It was first described by Gruber at the end of the 19th century.

A coracoclavicular joint represents an uncommon anatomical variant. It is considered by some authors to be genetically determined. Nevertheless cadaveric studies have not revealed a coracoclavicular joint in neonates and young children, suggesting a non-congenital cause. Aging has been implicated to play a role in its development. The coracoclavicular joint is a true synovial joint with articular cartilage and intracapsular synovial fluid, and usually, but not always, it is unilateral. Most reports are from patients of Asian origin, with sporadic occurrence in people of European or African descent. The clinical significance of the coracoclavicular joint is not entirely clear. The coracoclavicular joint has been associated with humeral head fracture, cervicobrachial syndrome, decrease in shoulder motion, thoracic outlet syndrome, and degenerative changes in adjacent joints. Osteoarthritis of the coracoclavicular joint may occur. The mean age of presentation of shoulder pain related to the coracoclavicular joint is 42 years, with a male to female ratio of 1.4:1. Brachial plexus involvement is the most common pathophysiological explanation provided. The first-line treatment is conservative, but this has an extremely low success rate of 5.9%. Surgical excision of the anomalous joint is always curative.

Reference

1. Gumina S., Salvatore M., DeSantis R., et al.: Coracoclavicular joint: osteologic study of 1020 human clavicles. *J Anat*, 2002, 201: 513-519.

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