A 47-year-old woman was referred to our radiology department for right shoulder arthroscanner evaluation because of anterior shoulder pain. She had previously been practising professional dance. Computed Tomography (CT) (Fig. A) did not show any shoulder pathology but meticulous analysis revealed the presence of a joint between the clavicle and the coracoid process with degenerative changes. In retrospect, the coracoclavicular joint was visible on plain radiographs (Fig. B).

A coracoclavicular joint arthrogram (Fig. C) confirmed a diarthrosis with articular cartilage covering both articulation surfaces surrounding by an articular capsule.

The patient was treated with local intraarticular injection of steroids under image guidance.

Comment

Coracoclavicular joint (CCJ) is a true synovial diarthrosis between the coracoid process of the scapula and the conoid tubercle of the clavicle. This relatively rare anatomical structure is reported by 0.04% to 3.0% of radiological investigations. The presence of such a joint is mostly asymptomatic but may cause shoulder pain. There are so far only 17 other reports of symptomatic CCJ but this incidence is likely underestimated due to underreported and undiagnosed cases. Patients commonly suffer from diffuse shoulder pain radiating to the arm. This pain can be accompanied by paraesthesia and is aggravated by movement.

Plain radiographs are typical of a joint and reveal a bony outgrowth from the undersurface of the clavicle forming an articular surface with a tubercle on the dorsomedial surface of the coracoid process. Arthrograms typically show the two processes forming a real joint surrounded by a capsule and the two bony surfaces being covered by cartilage.

In conclusion, CCJ is an unusual cause of shoulder pain which can be recognised on plain radiographs and ought to be considered in the differential diagnosis of unexplained shoulder pains.

Reference