POSTTRAUMATIC OSTEOLYSIS OF THE CLAVICLE

The acromioclavicular joint is commonly injured in rugby. This may vary from a mild strain to a significant fracture-dislocation. A less common, but important complication of injury to the AC-joint is osteolysis of the clavicle.

Posttraumatic osteolysis of the clavicle can lead to progressive resorption of the distal clavicle. The process may initiate by a single or repeated episodes of local trauma to the AC-joint. The osteolytic process may begin as early as 2 to 3 weeks or as late as several years after the injury.

Clinically the patient presents with pain, diminished strength, local crepitus and restricted movement. If untreated, the process may stabilise after 4 to 6 months.

The pathogenesis is not established, but synovial hypertrophy, vascular proliferation, osteoclastic activity and autonomic nervous system dysfunction may all play a role.

The diagnosis is confirmed radiologically with X-rays of the AC-joint. Subtle changes include localised osteoporosis and small articular erosions. Advanced osteolysis shows lysis of the distal clavicle (0.5 – 3 cm) and soft tissue calcification. In less obvious cases, MRI may show reactive bone oedema and subchondral cysts. In the chronic, asymptomatic phase the widened AC-joint gap remains widened.
X-ray AC-joint: Note resorption of distal clavicle

A diagnostic block of the AC-joint with local anaesthetic confirms the joint as the source of pain.

Treatment may vary from rest to surgery. At surgery the abnormal bone is removed.

References:

Madsen B: Osteolysis of the acromial end of the clavicle following trauma. Br J Radiol 36:882, 1963