Post-traumatic osteolysis of the distal clavicle

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A 16-year-old boy with shoulder pain after trauma underwent shoulder radiographs, which were considered normal. Pain persisted with conservative treatment and follow-up. Radiograph at 3 months demonstrated periarticular bony erosion of the distal clavicle (*arrow*) (Fig. 1). Subsequent MRI for evaluation of the acromioclavicular joint demonstrated bone marrow and soft-tissue edema, periarticular erosion of the distal clavicle, adjacent soft-tissue edema and widening of the joint capsule (*arrow*) (Fig. 2). Based on the clinical history of trauma and imaging findings, post-traumatic osteolysis of the distal clavicle was diagnosed and confirmed during surgical resection of the distal clavicle. Post-traumatic osteolysis of the distal clavicle results from acute trauma or repetitive microtrauma, and incidence is 6% in adults with prior

acromioclavicular joint separation. It is characterized by progressive bony resorption and bone marrow and soft-tissue edema of the distal clavicle, although exact pathophysiology is unknown [1]. Usually, good response is achieved by conservative management; surgical resection is performed in refractory cases [2].

Fig. 1 Follow-up radiograph 3 months after initial trauma

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Fig. 2 Oblique coronal T2-W image with fat-suppression of right clavicle

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