

# Tear of an ossified rotator cuff of the shoulder

## A case report

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A 57-year-old man with an ossified rotator cuff with acute tears was treated by resecting the ruptured part, as well as the ossicles, and by repairing the massive cuff defect with Teflon felt. Six years after

surgery, the pain had been completely relieved, and shoulder motion and muscle strength had been recovered.

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### Case report

A 57-year-old man suffered a lateral blow to his left shoulder and was examined at our clinic. He denied a history of previous injury. Motion of the left shoulder was severely restricted, and attempted abduction was painful. The source of clicking between the greater tuberosity and the acromion during motion of the shoulder was palpated.

An anteroposterior radiograph demonstrated the presence of radiopaque nodules within the subacromial space (Figure 1). At the arthrographic examination, the injected contrast medium extended from the capsule into the subacromial bursa, confirming the diagnosis of complete tears of the rotator cuff associated with ossicles or loose bodies in the shoulder joint.

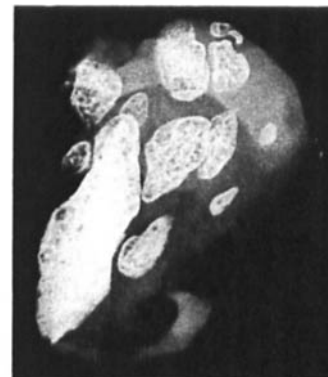
The patient was operated on 4 weeks after the injury. The subacromial bursa was excised, and hard nodules were palpated within the proximal edge of the torn rotator cuff. When the edges of the tear including the hard nodules were excised to healthy tendon, a massive 4 × 6-cm rotator-cuff defect resulted. To repair the defect, we used a Teflon felt, which was firmly sutured to the edge of the cuff and pulled down for anchorage around the greater tuberosity (Ozaki et al. 1986). While examining the resected, degenerated part of the cuff, we found that the ossicles were embedded in the supraspinatus tendon. A microscopic examination of decalcified sections, stained with hematoxylin and eosin, showed that the rotator cuff contained mature cancellous bone with fatty bone marrow. Foci with increased vascularization and fibroblast pro-



Radiopaque bodies in the subacromial area (arrow heads).



Arthrogram with dye in the subacromial bursa (arrows).



Radiograph showing the trabeculated ossified bodies within the rotator cuff.

Figure 1. A 57-year-old man with an acute tear of an ossified rotator cuff in the left shoulder.

liferations were also observed in the vicinity of the ossification.

Six years after the operation, the patient had no pain, and motion and muscle strength of the shoulder were normal.

### **Discussion**

An ossified rotator cuff of the shoulder has not been reported previously. Possible causes are 1) a sesamoid bone that normally develops in the rotator cuff, and 2)

that the bone had formed as a result of an acquired lesion of the rotator cuff. In our patient, there was no history of previous trauma. The ossification could therefore have been congenital. However, the exact etiology of the ossification remains unclarified.

### **Reference**

Ozaki J, Fujimoto S, Masuhara K, Tamai S, Yoshimoto S. Reconstruction of chronic massive rotator cuff tears with synthetic materials. *Clin Orthop* 1986; 202: 173–83.