Mistaken identity: calcific tendinitis in the finger

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INTRODUCTION

A case of digital flexor tendon calcific tendinitis is described, which was initially misdiagnosed as a fracture through a sesamoid bone. Calcific tendinitis occurs at a number of sites other than the shoulder. Radiography is important to help differentiate the condition from an acute infective process.

DISCUSSION

Calcific tendinitis is a condition characterized by calcium hydroxyapatite deposition in the tendon substance. It takes several clinical forms (Faure and Daculsi, 1983):

1. Chronic symptoms (pain, tenderness, decreased function)
2. Acute inflammatory crisis (severe pain and tenderness; possibly observable local inflammation)
3. Asymptomatic.

The supraspinatus tendon is particularly affected, but it has long been recognized that the condition can occur at other sites including the hand (Cohen, 1924; Carroll et al, 1955). Other tendons affected include those around the shoulder (any tendon in the rotator cuff, biceps brachii, pectoralis major), hip (gluteus maximus, other gluteal muscles, quadriceps femoris, adductor magnus), knee (quadriceps femoris, biceps femoris, patella tendon), calf (gastrocnemius, soleus), foot (peroneus longus, forefoot flexors), wrist and hand (flexor carpi ulnaris, intrinsic tendons) (Holt and Keats, 1993).

There have been only a few reports of hand calcific tendinitis in the English literature (Dilley and Tonkin, 1991; Holt and Keats, 1993; Giannikas and El-Hadidi, 1997) and even fewer involving the digital flexor tendons.

As emphasized previously (Dilley and Tonkin, 1991), this condition is frequently misdiagnosed as a fracture (as in this case) or infection (in the acutely inflamed). Notwithstanding the absence of trauma, radiography is the crucial investigation to allow differentiation from an infectious process that might require surgical drainage.

Treatment usually involves rest and a non-steroidal anti-inflammatory drug. Occasionally infiltration with steroid and local anaesthetic is useful; surgical excision is reserved for resistant cases. HM

CASE REPORT

A 42-year-old woman presented to the emergency department with pain and restricted movement in her right (dominant) index finger. The symptoms had been present for 10 weeks but were increasing in severity. There had been no antecedent trauma or repetitive use. She had a past history of low back pain and stiffness which had been investigated by the rheumatology department. Her white cell count, plasma viscosity, C-reactive protein level and lumbar spine radiographs were all normal. She was not HLA-B27 positive.

On examination she was apyrexial with no lymphadenopathy. There was minor swelling and focal tenderness on the volar side of the proximal interphalangeal joint of the right index finger, but the finger had a complete range of movement.

A radiograph (*Figure 1a*) showed two small areas of sclerosis volar to the proximal interphalangeal joint, coincident with the site of tenderness. The diagnosis of a fracture through a sesamoid bone was postulated. Laboratory investigations, including serum urate, were unrevealing.

The patient was referred to the fracture clinic where this diagnosis was initially accepted, but no specific treatment instigated. She was followed up 3 months later, by which time her symptoms had completely resolved. A repeat radiograph (*Figure 1b*) showed that the calcification had disappeared, allowing the retrospective diagnosis of calcific tendinitis.

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Dilley DF, Tonkin MA (1991) Acute calcific tendinitis in the hand and wrist. *J Hand Surg* **16B:** 215–16

Faure G, Daculsi G (1983) Calcified tendinitis: a review. *Ann Rheum Dis* **42:** S49–53

Giannikas KA, El-Hadidi M (1997) Acute calcifying tendinitis at the metacarpophalangeal joint - a case report. *Acta Orthop Scand* **68:** 603

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Figure 1. Lateral views of right index finger (a) at presentation, (b) 3 months later. The area of sclerosis has disappeared coincident with resolution of symptoms.

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