causes it to regain its correct tension and restores the balance between flexion and extension (Churchill and Citron, 1997).

References


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Re: “Stener-like” lesion in the little finger

Dear Sir,

Stener lesions (interposition of the adductor pollicis aponeurosis between the two ends of the ruptured ulnar collateral ligament) have been reported to be present in
up to 29% of injuries (Spaeth et al., 1993) and in 50% of complete ruptures of the ulnar collateral ligament of the thumb metacarpophalangeal joint (MCPJ) (Richard, 1996). We encountered a similar “Stener-like” lesion involving the radial collateral ligament of the little finger MCPJ.

A 47 year-old male plumber presented to our clinic 4 weeks after striking the dorsum of his non-dominant left hand on a ladder during a fall at work. He complained of a tender mass on the dorsum of his left hand that had been present since the injury. Physical examination revealed a tender mass between the ring and little metacarpal heads and increased pain with resisted adduction of the little finger. Radiographs revealed no fractures. Our initial diagnosis was a palmar interosseous strain with an organising haematoma. The patient was advised to buddy tape his left ring and little fingers daily and return to clinic in 1 month.

One month later, the patient reported no relief of his symptoms. The mass was still present, and moved with flexion and extension of the little finger MCPJ. MRI of the hand was performed, and suggested a distal rupture of the radial collateral ligament of the little finger MCPJ with displacement of the ligament dorsal and superficial to the proximal edge of the radial sagittal band and extensor hood (Fig 1). It also revealed a partial tear/strain of the radial aspect of the palmar interosseous muscle. Surgery was planned to repair the radial collateral ligament of the little finger MCPJ.

At surgery, it was found that the radial collateral ligament of the little finger MCPJ had been avulsed from the base of the proximal phalanx and had retracted to a position dorsal to the proximal edge of the sagittal band, in a similar manner to a Stener lesion (Fig 2). The sagittal band was divided longitudinally, and the avulsed ligament was relocated deep to the extensor hood and reattached to the base of the proximal phalanx.

After surgery, the left little and long fingers were buddy tapped, and physical therapy for strengthening and range of movement was commenced at 2 weeks. The patient had a full range of motion and a stable MCPJ at 6 weeks follow-up.

Stener lesions lead to chronic instability of the thumb MCPJ because the adductor aponeurosis is interposed between the ends of the ruptured ulnar collateral ligament, thereby preventing spontaneous healing (Stener, 1963). This unique anatomical arrangement makes surgical intervention mandatory. The case described here is no exception to this principle, as the free distal end of the ruptured radial collateral ligament of the little finger MCPJ was lying superficial to the proximal edge of the radial sagittal band. This was evident on a pre-operative MRI and was subsequently confirmed at surgery. At surgery, it was possible to successfully relocate the ruptured ligament to its anatomic position, deep to the extensor mechanism, such that the structure could heal and regain its function.

We have found no similar reports in the English literature, but an abstract in French has described an identical lesion (Faivre et al., 2002). It is our belief that the cause of this lesion is a hyperabduction force at the MCPJ of the little finger. The initial force causes a rupture of the distal attachment of the ligament, and the continued abduction results in the proximal edge of the sagittal band moving distally with respect to the MCPJ, such that the free end of the ruptured ligament lies proximal to its free edge. When the abduction force ceases, the joint relocates, and when doing so, the free

Fig 1 Axial T1 MRI with contrast showing radial collateral ligament (white arrow) superficial to the radial sagittal band (black arrows).

Fig 2 Intraoperative photograph revealing the proximal portion of the ruptured radial collateral ligament (identified by suture) of the little finger MCPJ proximal to the longitudinally divided and retracted the sagittal band (held by clamp) prior to repair.
end of the ligament remains superficial to the proximal edge of the sagittal band.

The most difficult aspect of this case was the diagnosis. The initial clinical diagnosis was thought to be a muscle strain with an organising haematoma. It was only after symptoms persisted despite adequate splinting that an MRI was obtained, which made the diagnosis clear. Based on this experience, we feel that tender web space masses should initially be managed conservatively (if radiographs are negative), but an MRI should be performed if the painful mass persists.

References


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Re: Scaphoid fracture in bilateral congenital synostosis of the scaphoid and trapezium

Dear Sir,

A 15 year-old right-handed girl of Afro-Caribbean origin presented with pain in the right wrist after sustaining a fall onto the outstretched hand in the school playground. Initial examination of the wrist showed tenderness in the anatomical snuff-box with restricted range of motion at the wrist. Examination of the contralateral wrist demonstrated a full range of motion. Radiographic examination of both hands confirmed a fracture through the waist of the right scaphoid and bilateral synostosis of the scaphoid and trapezium (Fig 1). She was treated by percutaneous fixation of the scaphoid fracture via a dorsal approach using a headless, self-tapping, variable-pitch compression screw. At the follow-up 8 weeks after the operation, she had no pain on palpation of the fracture site and range of movement was equal to the contralateral side. Bilateral foot radiographs were obtained and showed no evidence of tarsal coalitions. At 8 months follow-up, she was asymptomatic and a repeat CT scan showed union at the fracture site (Fig 2).

Carpal synostosis or synchondrosis results from incomplete cavitation of a common cartilaginous precursor during the 4th to 8th weeks of intrauterine life (O’Rahilly, 1953). Almost every possible combination of congenital carpal synostosis has been reported. The commonest combination is synostosis between the lunate and triquetrum, followed by fusion between the capitate and hamate (O’Rahilly, 1953). It can occur as part of a syndrome of multiple congenital anomalies or as an isolated entity. Syndromic carpal synostoses tend to involve more than two bones and cross the proximal and distal carpal rows. In contrast, isolated synostoses tend to involve only two bones and occur in the same carpal row (Weinzweig et al., 1997).

Scaphotrapezial synostoses are rare and most occur in patients with multiple anomalies or as part of a hereditary syndrome. Zielenski and Gunther (1981) and Barnes et al. (1992) have previously reported cases of scaphotrapezial synostosis; however, in neither report was there a concomitant scaphoid fracture.

References


