Acute Carpal Tunnel Syndrome Due To Spontaneous Haemorrhage

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A case of acute carpal tunnel syndrome due to spontaneous haemorrhage is presented. Urgent decompression is suggested as the treatment of choice.

Haemorrhage following trauma is a well recognised cause of carpal tunnel syndrome (Chalmers 1981, Hybbinette 1975). The condition has also been described in patients with a bleeding diathesis or taking anticoagulants who have suffered a spontaneous bleed into the carpal tunnel (Hartwell 1966, Bigelow 1952).

A case is presented of acute carpal tunnel syndrome caused by a spontaneous haemorrhage in an otherwise healthy patient.

Case Report

A previously fit seventy-six-year-old right handed woman presented with an eight hour history of increasing pain in her left wrist and hand, radiating to the elbow. There was no history of trauma, arthritis, bleeding diathesis or insect bite.

On examination she was in severe pain, requiring opiate analgesia. Her palm was swollen and bruising was present at the proximal wrist crease, on the palmar aspect of the second, third and fourth web spaces and at the distal interphalangeal crease of the little finger (Fig. 1). Decreased sensation was present over the distribution of the median nerve.

A full haematological and coagulation screen was normal and the ESR 30mm/hr.

Blood biochemistry was normal and rheumatoid serology negative. Radiographs of the wrist and hand showed degenerative changes in the trapeziometacarpal joint of the thumb but no other abnormality.

In spite of large doses of opiates and elevation her pain increased. It was decided to explore and decompress the wrist. The flexor retinaculum was incised and found to be of normal thickness. The carpal tunnel contained yellow oedema fluid and the flexor tendon sheath contained blood which could be milked proximally and distally (Fig. 2). The blood was released and no obvious site of haemorrhage was found. The skin was closed.

Pain relief was immediate but motor and sensory function in the median nerve took six months to recover. All haematological and biochemical investigations were repeated at six months and were normal, the ESR remaining marginally raised.

Fig. 1 Appearance of the hand at presentation showing bruising on the palmar aspect.

Fig. 2 Haematoma adjacent to the median nerve.
Discussion

Haemorrhage has been implicated as a cause of acute carpal tunnel syndrome in trauma (Chalmers 1981), rheumatoid arthritis (McClain 1976), haemorrhagic diseases (Bigelow 1952), anticoagulant therapy (Hartwell 1966) and spontaneous intraneural haemorrhage (Hayden 1964). This case was spontaneous, the blood appeared to be within the flexor tendon sheath and may have been caused by a bleed outwith the view of the releasing incision.

Pain had been severe and unrelieved despite opiates till decompression was undertaken. Elevation was unsuccessful in relieving symptoms and may have prejudiced the final outcome by delaying operation.

A short history with severe pain indicating compression secondary to haemorrhage rather than oedema should lead to urgent decompression in an attempt to minimise neural damage.

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References


