Two unusual cases of distal interphalangeal joint Dupuytren's contracture

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SUMMARY. Following trauma, two Caucasian males presented with Dupuytren's contracture affecting the distal interphalangeal joint of the little finger and extending onto the dorsum of the digit to insert into the nail bed. Complete excision of the cords and appropriate physiotherapy helped the patients achieve excellent postoperative results.

Case reports

Case 1
A 49-year-old right handed sales manager presented with a 3-year history of progressive contracture of the DIPJ to his right little finger. Four years prior to his attendance, he had a mallet finger type injury which was completely resolved by conservative splinting. Twelve months following this, secondary contracture developed.

On examination the only abnormality that was found was a 60° contracture of the DIPJ to the right little finger due to a strong cord extending across this joint to the radial side. The range of motion of the DIPJ was 20°, but of the PIPJ was normal. Exploration was carried out through a linear incision over the axis of the cord. A strong cord extending from the PIPJ passing distally and spiralling to insert to the nail bed was excised. Both neurovascular bundles were identified and preserved. His postoperative progress was uneventful. He has now been followed up for nearly 3 years and has a full range of finger movements without motor or sensory deficit.

Case 2
A 67-year-old right handed retired government officer presented with an 18-month history of progressive contracture of both DIP and PIP joints to his left little finger. Three
years prior to his attendance he had had what was termed a Dupuytren's contracture corrected at the same side. In the past, this finger had been the site of a glass injury. On examination the hand was found absolutely normal apart from a 40° contracture to both DIP and PIP joints of his little finger, due to a strong cord extending along the radial side of the digit. The operative findings were identical to those of the first case, with a strong cord extending from the PIPJ passing distally and spiralling to insert into the nail bed. This cord was excised, preserving both neurovascular bundles. His postoperative progress was uneventful, with no recurrence of the deformity for nearly 3 years. Recently, however, he has developed a PIPJ 30° recurrence and an abductor digiti minimi cord.

Discussion

Dupuytren’s contracture does not usually affect the DIPJ. When it does, it is associated with extensive disease in the rest of the hand and follows a well described anatomical pattern (Millesi, 1967; Thomine, 1985). Flexion contracture at the DIPJ is usually caused by the development of lateral and/or retrovascular cords. None of these cords extends onto the dorsum of the digit (Gosset, 1972; McGruther, 1982; McFarlane, 1984). The ulnar aspect of the little finger rather than the radial one is most often affected by Dupuytren’s disease (Tubiana and Defrenne, 1976; White, 1984). Both Millesi (1967) and McFarlane (1974) showed that surgery for DIPJ contracture usually gives poor results. This can be attributed to incomplete removal of fascia and lack of postoperative physiotherapy directed to this point. In the above cases we feel that the pattern of DIPJ contracture is unusual both because of the absence of disease to the palm or connection with it and the unique anatomy of the cords. We could say that the cases represent a reverse pattern of Dupuytren’s disease, starting from distally towards proximally. Both patients achieved excellent postoperative results due to both the complete excision of the cords and the appropriate physiotherapy.

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References


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