Traumatic Correction of Dupuytren's Contracture

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Two cases are described where a Dupuytren's contracture has been released by injury.

Case 1. A seventy-nine year old male presented with an open wound of the hand (Fig. 1a). He had fallen from a chair landing on the outstretched hand. He described a contracture of the hand at the metacarpophalangeal joint of the ring finger of some ten years duration. The contracture had been relieved by the fall. There was an open wound at the base of the ring finger between the distal palmar crease and proximal finger crease and this wound could be closed by flexing the metacarpophalangeal joint.

There were palmar nodules proximally and distally and distortion of the distal palmar crease in keeping with a diagnosis of Dupuytren's contracture (McGrouther 1982). The history of a contracture of gradual onset with palmar nodules supported the diagnosis of Dupuytren's contracture although the patient was not examined prior to the fall.

The wound was treated by simple dressing and healed apparently by contracture but also by marginal epithelialization (Fig. 1b). Normal use of the hand was continued during the healing phase. Following healing the hand remained straight (Fig. 1c) and there was no recurrence of joint contracture two years later although the hand skin remained tight.

Case 2. A sixty-six year old man with a ten to twelve year history of a hand contracture was examined and photographed at an out-patient clinic (Fig. 2a, 2b). The diagnosis of Dupuytren's contracture was made with a severe contracture of the proximal interphalangeal joint of the ring finger and the patient was admitted some time later but the hand was found to be straight (Fig. 2c, 2d). The patient described a traumatic incident fifteen months previously when the fingers were forceably extended. Apparently he was winding the starting-handle of a Morris Minor when the engine backfired. He felt a great deal of pain across the base of his right ring finger. He looked at his hand and there was a split through the skin. Slowly he was able to get his finger out straight. Having done his own "operation" he then proceeded to give himself physiotherapy and the contracture did not recur.

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Discussion

Longitudinal contracture was relieved by traumatic forced extension in both patients. The mode of action of the trauma was presumably to produce tearing of the contracted fascial longitudinal bands thereby producing a discontinuity in the Dupuytren's tissue similar to that which would be produced by a subcutaneous or open fasciotomy. These cases illustrate the principle that the production of a discontinuity can relieve the signs without excision of the Dupuytren's tissue.

The method seems to have been successful in relieving contracture of the metacarpophalangeal joint (Case 1) and proximal interphalangeal joint (Case 2).

The mode of healing in Case 1 was observed to be similar to that after the open palm type of fasciotomy, the wound healing obliquely transversely. Case 2 also healed spontaneously and it seems that such unusual cases can be managed conservatively.

Two years later Case 1 certainly showed some tightness of the skin, although the nodules and distortion of the distal palmar crease had largely resolved. The late photographs in Case 2 indicate that there is still some contracture of the natatory ligaments between the middle and ring fingers. There remains of course the possibility that in the longer term the contractures may recur.

References

McGROUTHER, D. A. (1982). The Microanatomy of Dupuytren's Contracture. The Hand, 14: 215-236.

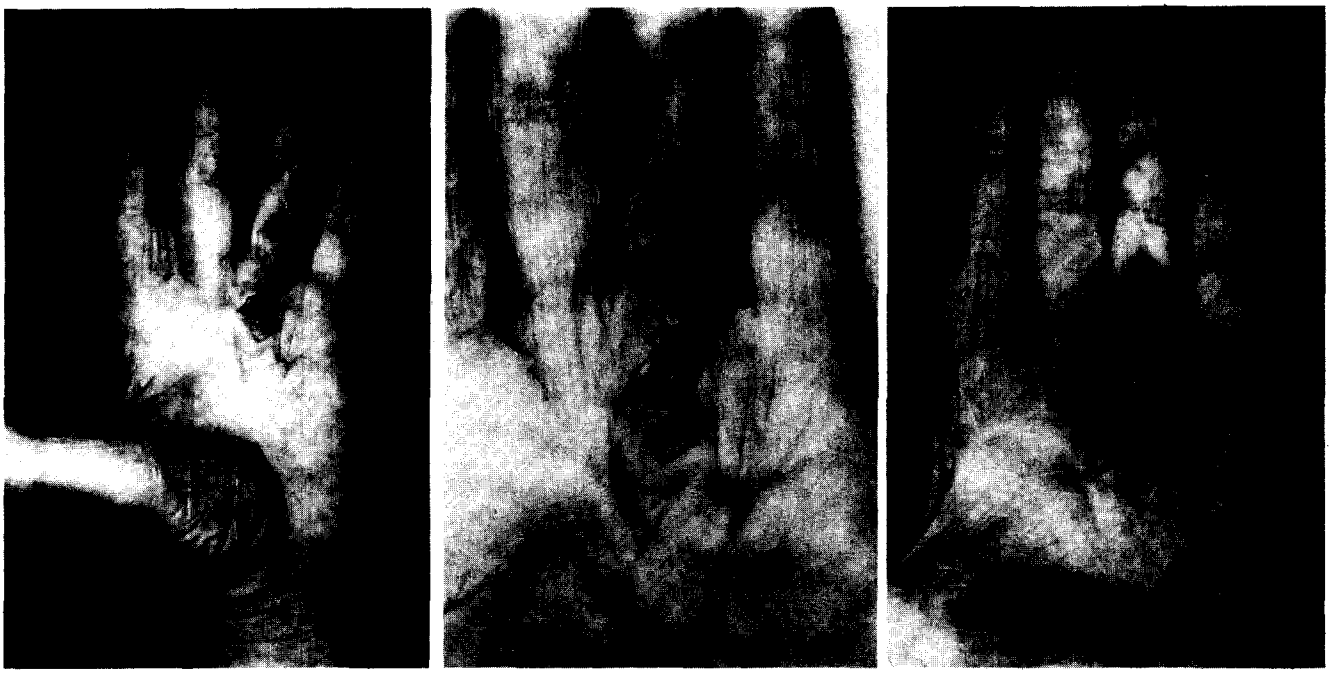

Fig. 1—Case 1.
1a Open wound palm 24 hours after injury. The tear in the palmar skin is shown. There is a large skin nodule in the proximal segment of the finger and distortion of the distal palmar crease.
1b 8 days after injury.
The wound is healing partly by contraction and partly by marginal epithelialization.
1c 5 months after injury.
The wound has healed leaving an obliquely transverse scar. The distal nodule has reduced in size but palpable thickening is apparent proximally and distally as indicated by arrows suggesting that the longitudinal cord of palmar fascia has separated by the distance shown.

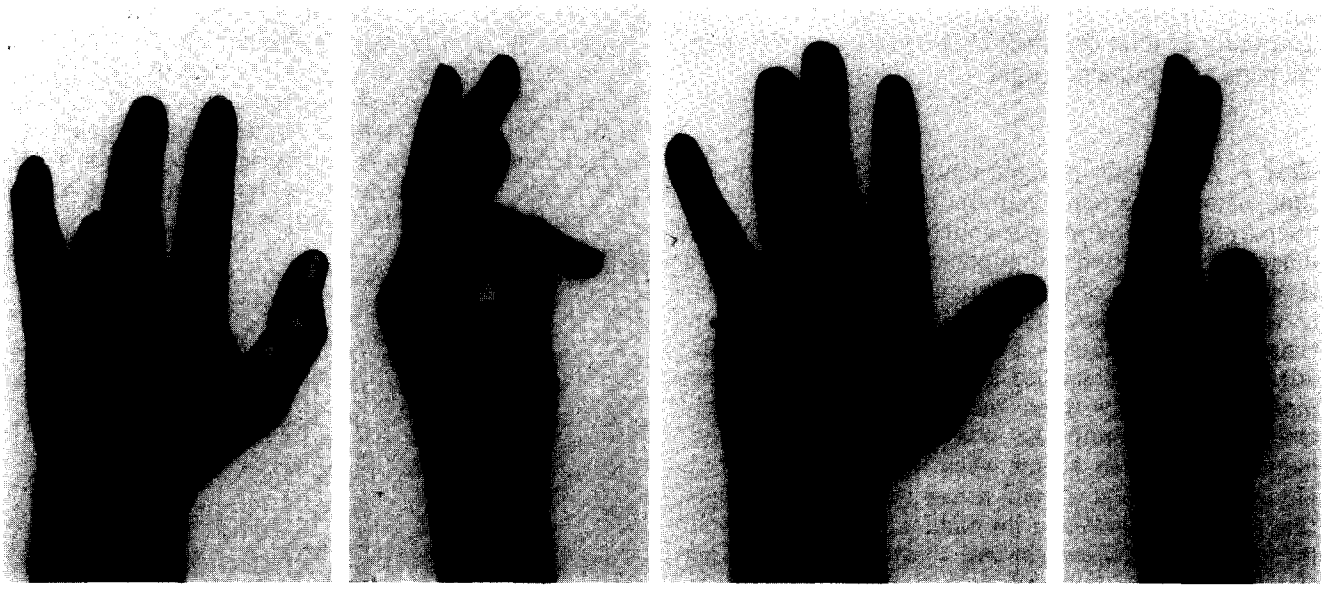

Fig. 2—Case 2.
2a & 2b Severe proximal interphalangeal contracture of ring finger 1 year and 9 months before injury.
2c & 2d The longitudinal contracture relieved 1 year and 3 months after injury.