The Palmar Intermetacarpal Flap in Dupuytren's Contracture

Dear Sir,

Patients presenting with Dupuytren's contracture in which fasciectomy involves dissection of two or more digital rays are not uncommon. The cutaneous island located between the distal palmar crease and the web space, and limited by the incisions designed to treat the two adjacent fingers, constantly survives, despite possible concerns as to its viability.

In some instances of single or multiple finger disease, we have used part of this skin island as a diamond shaped pedicled flap, based distally with the pivot point at the web space and rotated through 90°, to cover the base of the finger (Figs 1–3). During the elevation of this flap, which is very easy to harvest, small vessels emerging from the digital arteries are seen to supply the skin paddle. To date, this flap has been used in eight cases and no necrosis, total or partial, has occurred. Also, direct closure of the donor site was always possible and did not seem to limit the abduction of the little finger.

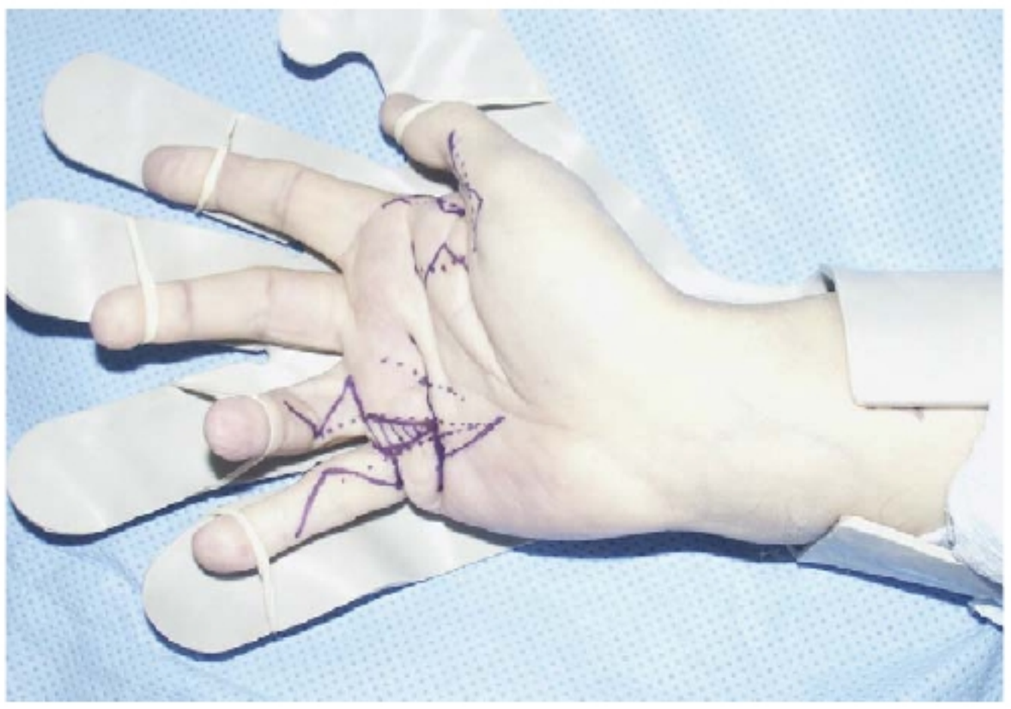

Fig 1 The planning for release of Dupuytren's contrature involving the ring and little fingers is shown. The proposed palmar intermetacarpal flap is shown by the shading just proximal to the fourth web space.

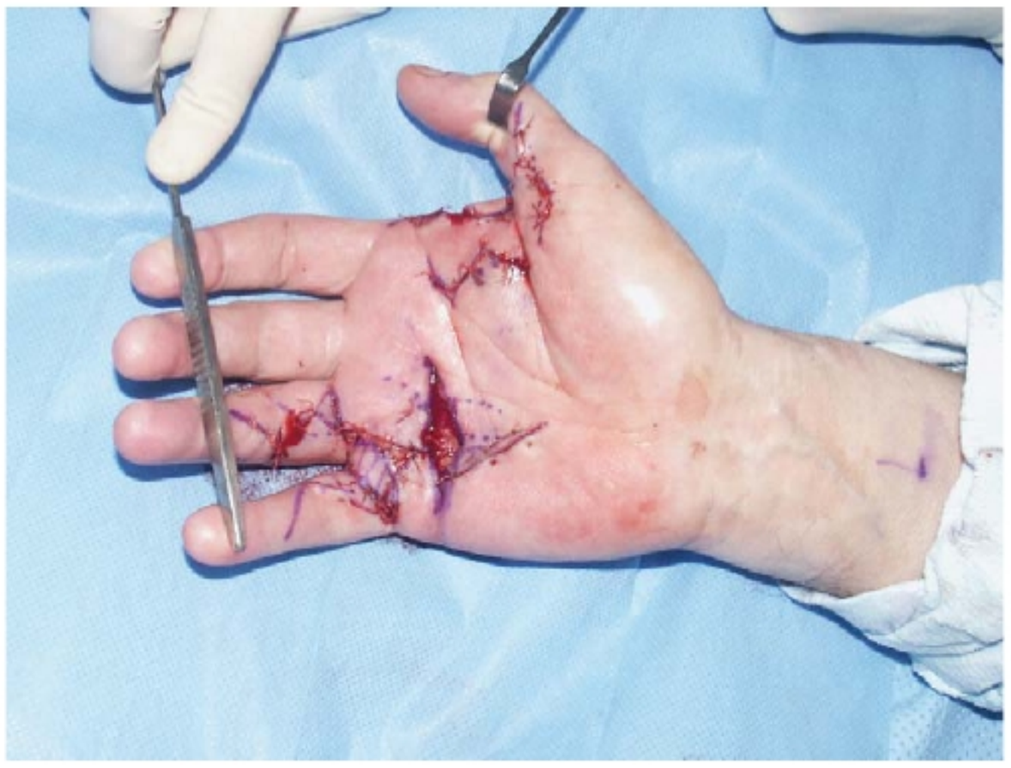

Fig 2 Rotation of the distally based flap to the base of the little finger is shown following total fasciectomy.

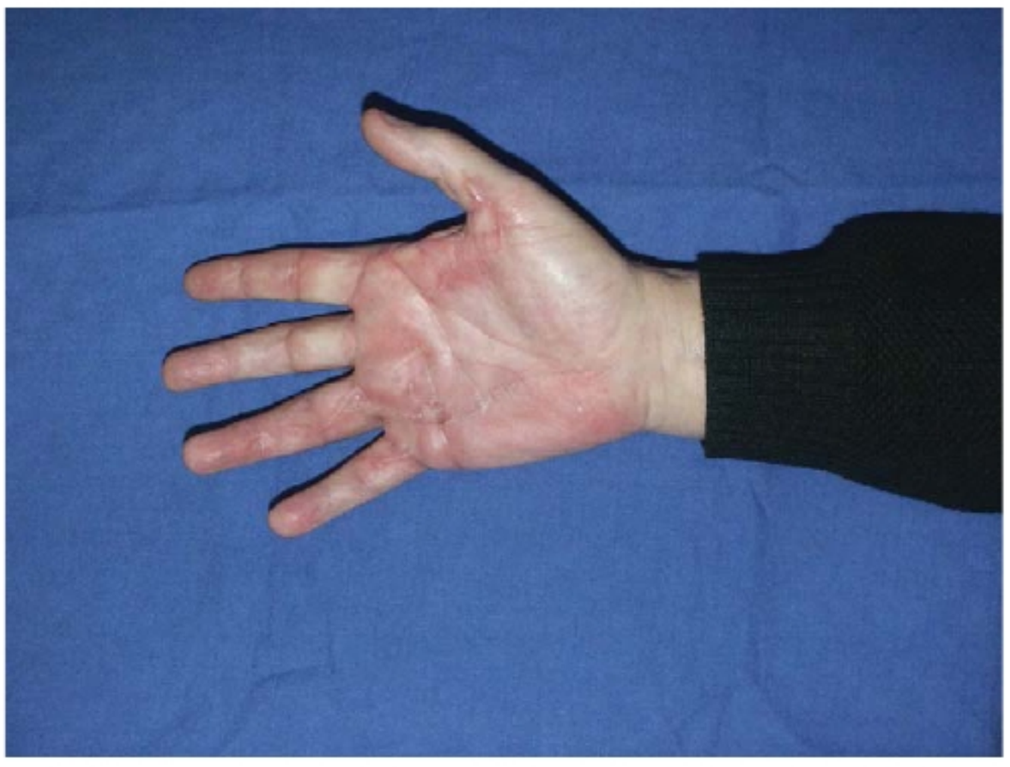

Fig 3 The postoperative result at 3 months.

This flap may also find a use in other circumstances of skin loss or scarring around the bases of the fingers or the web spaces.

More anatomical investigations need to be carried out to assess the vascularisation and reliability of this flap, but the first few clinical cases have been encouraging.

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Dupuytren's Disease in a Patient with Marfan's Syndrome

Dear Sir,

A 66 year-old man with a known history of Marfan's syndrome, with associated musculoskeletal and cardiovascular sequelae, presented with a flexion contracture of the right fifth proximal interphalangeal joint of 30° as a result of an abductor band of Dupuytren's disease. He also had what was assumed to be a palmar band of Dupuytren's disease in the line of the little finger ray

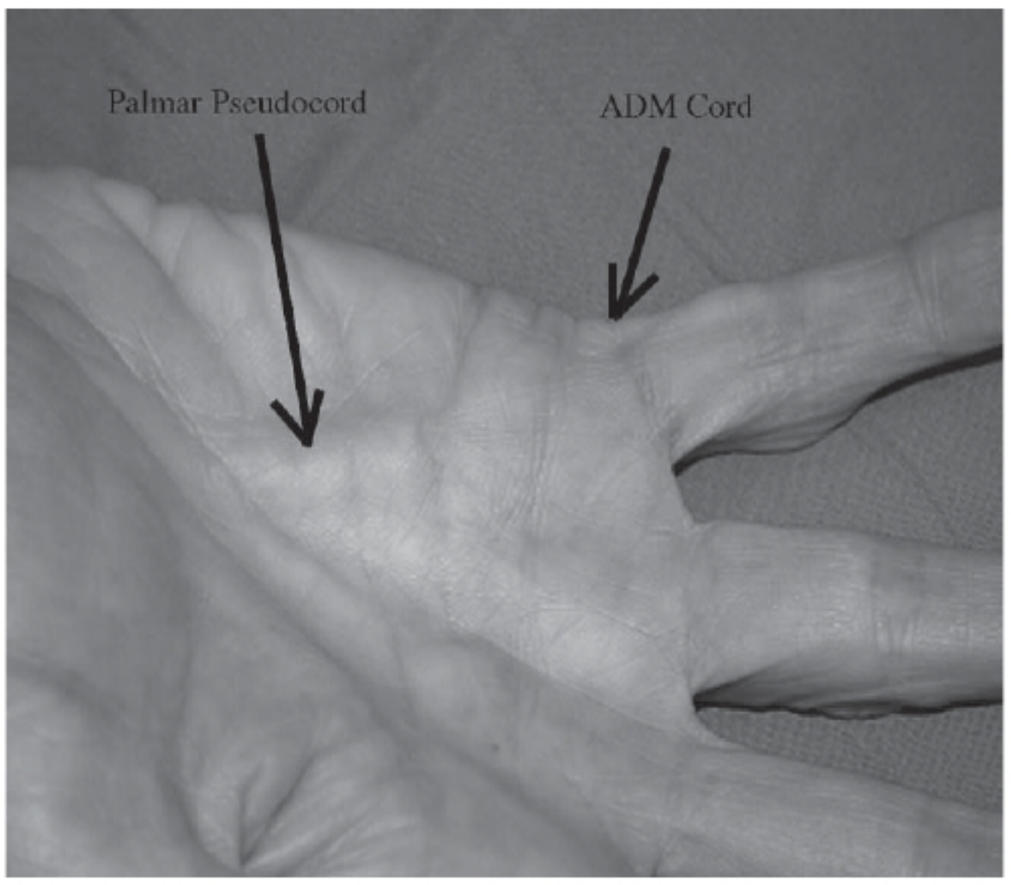

Fig 1 Visible palmar band and abductor digiti minimi cord of Dupuytren's disease.

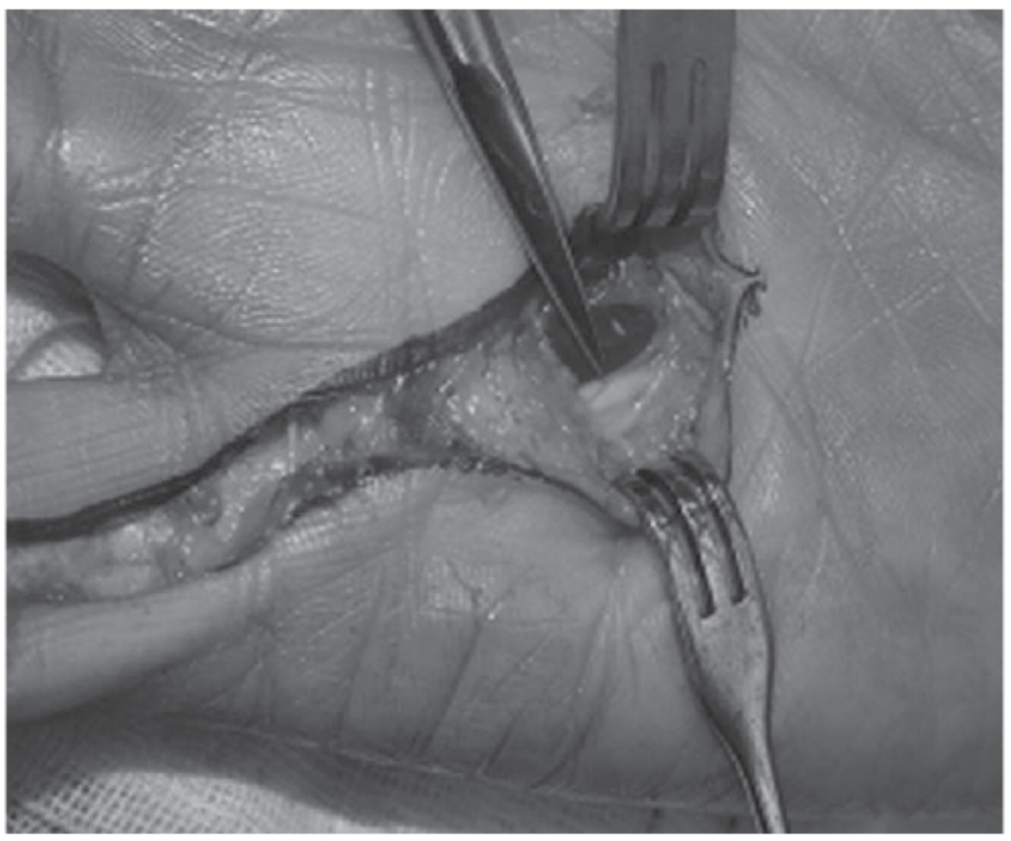

Fig 2 Intraoperative demonstration of the anteriorly subluxed superficial flexor tendon responsible for the palmar band.

(Fig 1). At surgery, the abductor band was excised and was histologically consistent with Dupuytren's disease. The palmar cord was found to be bowstringing of the flexor tendons (Fig 2).

Marfan's syndrome is an autosomal dominant connective tissue disorder involving, predominantly, the cardiovascular, musculoskeletal and ocular systems which is caused by an inherent structural weakness in collagen, associated with mutations in the FBN1 gene encoding for fibrillin-1 (Dietz and Pyeritz, 1995). One other case of Dupuytren's disease in a patient with Marfan's syndrome has been described (Rennie and Rangan, 1999). Both cases presented with abductor bands. It is both curious and interesting that a contractile condition of the palmar aponeurosis should co-exist with a connective tissue disorder whose major characteristic is an inherent weakness of collagen leading to distended and hyperelastic connective tissue.

The presence of prominent palmar bands which are not Dupuytren's disease but anteriorly subluxed flexor tendons as a result of chronic metacarpophalangeal joint flexion secondary to rheumatoid disease and mental and neurological conditions, was described by Elliot and Khan (1996). These authors attributed this tendon bowstringing to attenuation of the A1 and A2 pulleys as a result of the chronically flexed finger position. They drew attention to the dangers of misdiagnosis as patients with such palmar bands would be likely to be included among those treated by blind fasciotomy through small incisions. Needle fasciotomy is the most recent variant of this minimally invasive option for the management of Dupuytren's disease (van Rijssen and Werker, 2006). Having made this misdiagnosis, the fingers would certainly be released, but by tenotomy, not fasciotomy. Elliot and Khan (1996) drew attention to the sharper feel of the subluxed flexor on palpation, making diagnosis possible if suspicion was present from the patient's associated medical condition. Our patient, with an intrinsic defect in the tissue collagen, presumably weakening the palmar aponeurosis and/or flexor pulley system, exhibited the same clinical sign and would have been equally at risk of flexor tenotomy, resulting in a flail finger, if treated by blind/needle fasciotomy.

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