Dupuytren's disease in a child: a case report

Vipul I. Mandalia and Ian M.R. Lowdon

Dupuytren's disease commonly affects men over the age of 40 years. It is very rare to find it in the paediatric age group. We describe a case of histologically proven Dupuytren's disease in a 10-year-old boy who presented with a nodule in his palm. Dupuytren's disease should be considered in the differential diagnosis of a nodule in hand or contracture of a finger joint in the paediatric age group. J Pediatr Orthop B 12:198-199 © 2003 Lippincott Williams & Wilkins.

Journal of Pediatric Orthopaedics B 2003, 12:198-199

Keywords: Dupuytren's, palmar fibromatosis, contracture

Department of Trauma and Orthopaedics, Princess Margaret Hospital, Okus Road, Swindon, Wiltshire, UK.

Correspondence and requests for reprints to Mr Ian Lowdon FRCS, Consultant Orthopaedic Surgeon, Great Western Hospital, Marlborough Road, Swindon,

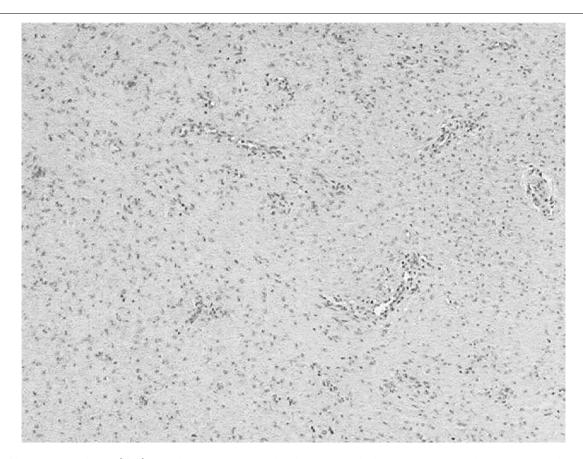
Tel: +44 1793 604903; fax: +44 1793 604917; e-mail: NHS@Lowdon.com

Introduction

Dupuytren's contracture is a fibroproliferative disorder of autosomal dominant inheritance mostly affecting men over the age of 40 years. Although Dupuytren's contracture is reported to occur in children, it is very rare.

There are only three cases of histologically confirmed Dupuytren's disease in patients younger than 10 years of age [1,2]. Three more such cases are mentioned in the literature but they are based on personal communication rather than properly reported studies [3]. We report the

Fig. 1



Histology. Haematoxylin and eosin (H&E) stained section of an excised nodule showing fibroblastic proliferation without any pleomorphism or mitotic activity.

case of 10-year-old boy with a 1-year history of a symptomatic nodule in his hand, which was histologically confirmed as Dupuytren's disease.

Case report

A 10-year-old boy presented with a history of a lump in his left palm which had been present for 1 year. It had gradually increased in size and he was finding it uncomfortable when gripping things. There was no history of trauma and no family history of Dupuytren's disease. On examination there was a nodule in the middle of the palm in the line of the ring finger. There was no palpable cord and no contractures of the interphalangeal or metacarpophalangeal joints.

At operation a nodule arising from the superficial longitudinal palmar fascia was removed. There were no postoperative complications. The diagnosis of Dupuytren's disease was confirmed by histopathological examination, which showed nodular proliferation of fibrous connective tissue without any nuclear pleomorphism or mitotic activity (Fig. 1).

Discussion

Dupuvtren himself described a case of ring and small finger joint contracture in a 6-year-old child, although of course there was no histological examination done at that time. Goetzee and Williams [3] in 1955 reported a case of a 14-year-old boy who had histologically diagnosed

Dupuytren's disease in both a foot and a hand [3]. Hueston [4] in 1963 described the case of a 12-year-old boy with histolocially confirmed Dupuytren's disease. Urban et al. [2] reported two cases of histologically diagnosed Dupuytren's disease in 9- and 10-year-old boys. They also summarized clinically suspected but not histologially diagnosed cases of Dupuytren's in teenagers. Foucher et al. [1] in 2001 described a histologically diagnosed case of Dupuytren's disease in a 10-month-old child.

Depending on the age at presentation and clinical findings of a nodule or finger contracture, different conditions like congenital ulnar drift or camptodactyly should be considered in the differential diagnosis. Our report and previous reports of cases of Dupuytren's disease in children suggest that, although it is rare, it should be included in the differential diagnosis of a nodule in the hand or contracture of a finger joint in the paediatric age group.

References

- Foucher G, Lequeux C, Medina J, Garcia RN, Nagel D. A Congenital hand deformity: Dupuytren's disease. J Hand Surg (Am) 2001; 26:515-517.
- Urban M, Feldberg L, Janseen A, Elliot D. Dupuytren's disease in children. J Hand Surg (Br) 1996; 21B:112-116.
- 3 Goetzee AE, Williams HO. A case of Dupuytren's contracture involving the hand and foot in a child. Br J Surg 1955; 42:417-420.
- 4 Hueston JT. Dupuytren's contracture. Edinburgh: Livingstone; 1963.