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RECURRING DIGITAL FIBROMAS OF INFANCY

A Case Report

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A case of recurring digital fibromas of infancy, with bilateral absence of the second metatarsal and deformed third metatarsal, is reported.

Key words: digital fibroma, recurring; infancy

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Recurring digital fibromas of infancy is a rare condition, the clinical features and behaviour of which have been discussed in detail by Reye (1965). The published reports of the occurrence of this disease are scanty (Grunnet et al. 1973, Bloem et al. 1974). We report one such case, believing it to be the first reported from India.

CASE REPORT

An 11-month-old female infant was brought to the Orthopaedic Clinic of JIPMER Hospital, Pondicherry, with a history of progressive swellings of the distal parts of the fingers, one on the left and four on the right hand, associated with bilateral deformed second toes. One week after birth a small swelling was noticed on the left ring finger. Subsequently similar swellings appeared one after another on other fingers. The swellings increased rapidly in size. The extent and distribution of the tumours are shown in Figure 1. The most prominent growths were on the dorsolateral region of the left ring finger and on the right ring, middle and right index fingers. The tumours involved the terminal phalanges sparing the nails. There was a small growth on the lateral side of the right little finger. The tumours were firm and painless. The overlying skin was red and shining. The tumours were fixed to the skin and underlying tissues except for the small one on the little finger which adhered to the skin only. There were flexion contractures of the right ring and four left fingers. Bilateral syndactyly and flexion contracture of the second toe were also present (Figure 2). The lower lip had an abundance of vermillion.

On X-rays the four radial metacarpals on the left side were seen to be short and deformed (Figure 3). There was bilateral absence of the second and hypoplasia of the third metatarsal (Figure 4).

Arteriography showed the avascular nature of the tumours (Figure 5). This was confirmed during excision of one of the tumours, no bleeding occurring during surgery. The specimen removed was a nonencapsulated greyish white fibrous mass. Histopathological examination showed that the dermis was replaced by interlacing bands of fibrous connective tissue with an abundance of collagen, similar to dermato-fibromas with no sign of malignancy. A section of deformed bone showed a normal histopathological appearance. The tumour tissue did not yield any viral agent in monkey kidney, vero and He-la cell lines.

DISCUSSION

According to Bloem et al. (1974) recurring digital fibromas of infancy are common in females. They arise from the fingers, and are often multiple in distribution. They start as small nodules which may increase to an

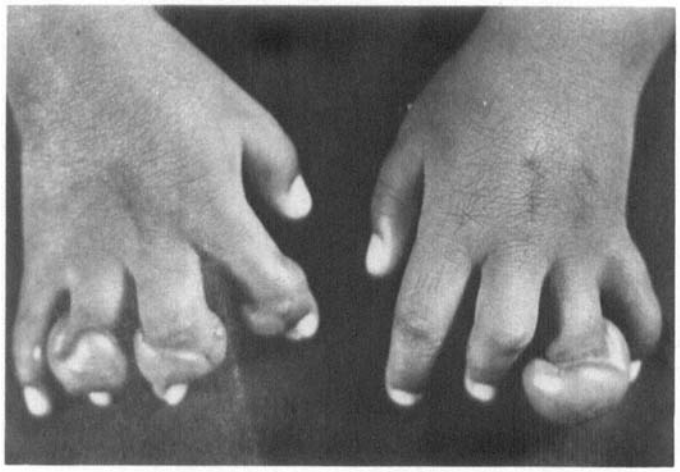

Figure 1. Fibromas on both hands.

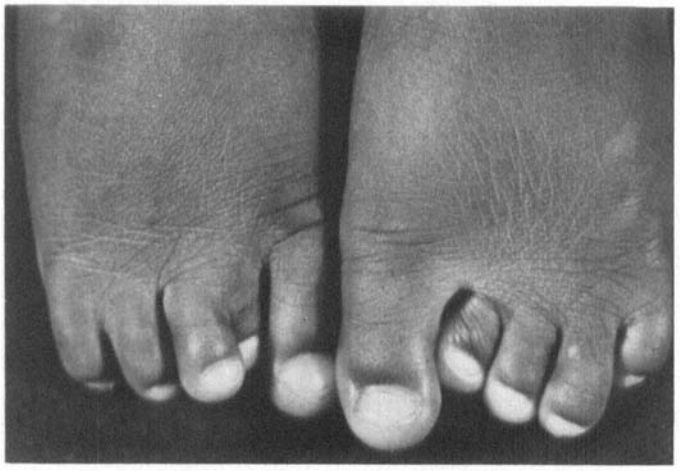

Figure 2. Flexion contracture and syndactyly of the second toe.

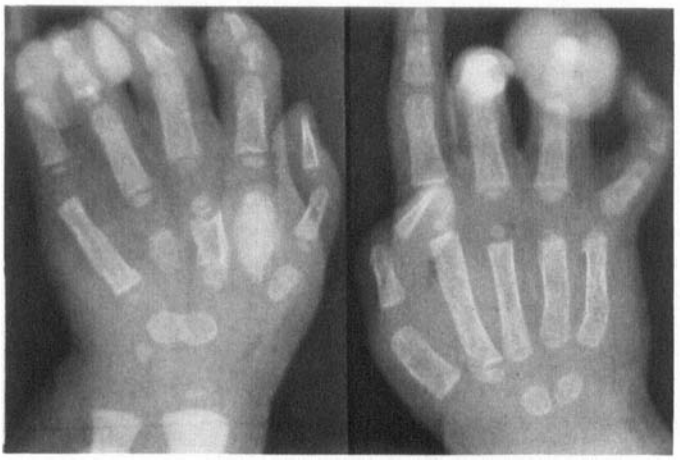

Figure 3. X-rays showing short and deformed metacarpals of the left hand.

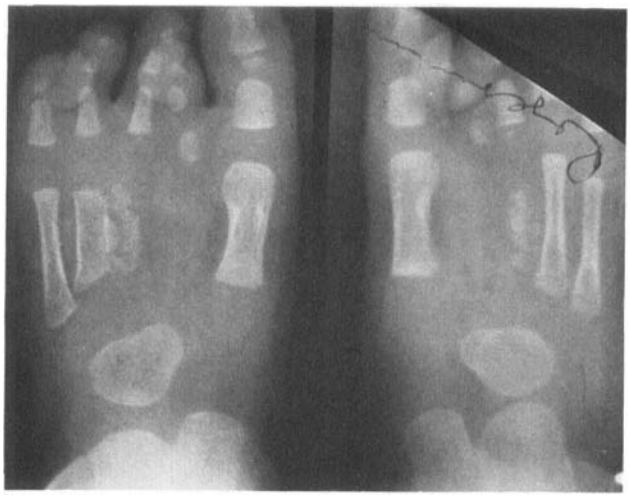

Figure 4. X-ray showing bilateral absence of the second and hypoplasia of the third metatarsals.

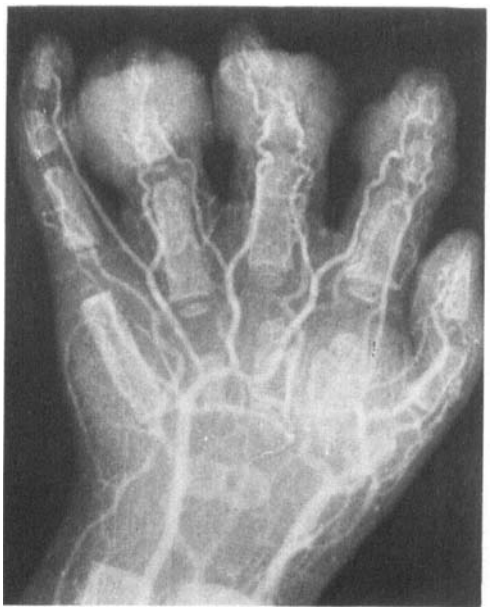

Figure 5. Arteriogram showing the avascular nature of the tumours.

enormous size, affecting mainly the dorsolateral aspect of the distal parts of adjoining fingers. The covering skin may become reddish in colour and fixed to the tumour. The swellings are painless and often adhere to the deeper tissues sparing the bones. The cut section is avascular and greyish white in colour. Microscopically, the dermis is replaced by interlacing bands of fibrous tissue with an abundance of collagen. The site of origin, tendency to recurrence and the presence of cystoplasmic inclusion bodies (Reye 1965, Ahlqvist et al. 1967, Burry et al. 1970, Battifora & Hines 1971) are the main features by which these tumours are differentiated from other forms of fibromatosis. Bloem et al. (1974) also described the presence of flexion contracture and deformed metacarpals of the affected fingers and an abundance of vermillion. The case presented here had all the characteristics described earlier, except for the presence of cytoplasmic inclusion bodies. Bloem et al. (1974) also failed to demonstrate cytoplasmic inclusion bodies in their cases.

Pohjanpelto et al. (1967) believed that some virus may be the aetiological factor in the development of these growths. No virus, however, could be isolated in our case in agreement with the findings of Bloem et al. (1974). Some abnormal maternal hormone circulating in the blood of the new born has been presumed to play a role in the appearance of these tumours immediately after birth as the tumours quite often regress spontaneously later on (Stout 1975, Grunnet et al. 1973, Bloem et al. 1974). Bloem et al. (1974) recommended conservative treatment. Recurrence has been reported even after excision (Jensen et al. 1957, Shapiro 1969).

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