ACQUIRED DIGITAL FIBRO KERATOMA

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Summary

A case of Acquired Digital Fibro Keratoma is reported in a woman with a short review of the literature. This report is the first of its kind in Indian literature.

KEY WORDS: Acquired digital fibrokeratoma, fibrokeratoma, digital fibrokeratoma.

Acquired Digital Fibrokeratomas (ADFK) are acquired benign growths that usually occur on the fingers. They are firm elongated hyperkeratotic horn like projections ½ to 1 cm in height that arise out of a collarette of slightly raised skin. It may resemble a rudimentary super-numerary digit or may be mistaken for some other more common conditions like cutaneous horns, fibromas, etc., Clinically and histologically ADFK is a distinct entity.

Bart et al[1] were the first to suggest the name ADFK for this rare, easily misdiagnosable skin lesion. They reported 10 cases in 1968. In a retrospective study Pinkus[2] found that among 56,000 biopsy specimens, 28 had features of ADFK and he suggested the term 'acral fibrokeratoma' for this condition. Varello[3] reported a retrospective study of 32 cases diagnosed histologically as ADFK. In 1969 Hare and Smith[4] reported 18 cases and studied their histology. Microscopically a fibrokeratoma is composed of a core of normal appearing connective tissue covered with an acanthotic epidermis which produces a dense enveloping hyperkeratosis. Dermal papillae are well formed[4]. The core of the lesion is formed of thick interwoven bundles of collagen[1]. These bundles are predominantly oriented in the vertical axis of the lesion. The central core may also contain capillaries, nerve bundles[1] and sweat ducts[2]. Surgical excision or ablation at the base followed by electrodessication of the base is curative in all patients. Here we report a case of ADFK on the index finger in a 44 years old lady.

Case Report

A 44 years old woman, a school teacher, was seen in Dermatology department of Medical College Hospital, Trivandrum for an asymptomatic growth on her left index finger. It was of three years' duration and was situated on the dorsolateral aspect of proximal interphalangeal joint. It was a firm smooth hyperkeratotic horn-like projection 8mm in height and 3mm in diameter at its base (Fig. 1). There was no similar skin lesion on other parts of the body. General physical and systemic examination did not reveal any abnormality. The lesion

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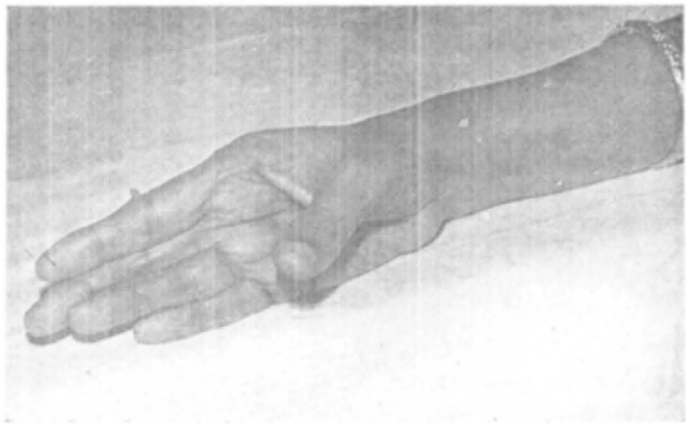

Fig. 1

An acquired digital fibro keratoma on the index finger.

was excised at the skin surface level and the base was subjected to electro cautery.

Investigations

Routine examination of the blood for Hb, TC, DC, ESR, VDRL and sugar did not reveal any abnormality. Routine urine examination was normal. The histology of the excised specimen revealed marked hyperkeratosis, acanthosis and elongation of rete all around a central core of connective tissue (Fig. 2). The keratinocytes maintained their normal morphology. The dermal papillae were well formed. The core of the lesion consisted of bundles of collagen predominantly oriented in the vertical axis of the lesion. Verhoeff's staining revealed normally appearing elastic fibres in the core. Few nerve bundles were also seen in the core.

Discussion

The term acquired digital fibrokeratoma (ADFK) first suggested by Bart et al[1] has the merit of descriptive

Fig. 2 ADFK. Histology. (X 10) Note marked hyperkeratosis and acanthosis all around the central core of connective tissue in which the bundles of collagen are predominantly oriented in the vertical axis of the lesion.

clarity. Similar lesions may occur on palms and soles and so Verallo's[3] proposal to omit 'digital' from the name is justified. The central core of the tumour closely resembles the normal corium. There seems little justification for regarding these as extrusion of normal dermis[4]. The lesion appears to be a distinct entity whatever its nosological position. Most important for the clinician is to differentiate this entity from other common conditions like cutaneous horn, fibroma, supernumerary digit, wart, etc. The present case well fitted in with a diagnosis of ADFK both clinically and histologically. Special staining revealed the presence of normal elastic fibres in the central core of the lesion. The dermal papillae were well formed and the irregularly arranged collagen fibres were predominantly oriented in the long axis of lesion. These findings are consistent with those described in ADFK[1-3]. A few nerve bundles could be seen in the core. Though Bart et al[1] have recorded such a finding, the cases reported by Hare & Smith[3] did not show nerve bundles in their lesions. A large number of nerves and structures (Meissner corpuscle type) usually present in super-numerary digits were not seen in the present case. Further, the latter condition is seen at birth, occurs at the bases of fifth fingers and are often bilateral. These may also be familial[1]. Cutaneous horns though clinically resembling ADFK, do not have a prominent core of outgrowing connective tissue and often have a picture of epidermal neoplasia at their bases. The present case had a prominent core of connective tissue and the keratinocytes maintained their normal morphology. Absence of papillomatosis and vacuolation of epidermal cells histologically excluded the possibility of warts. Ordinary fibroma, though uncommon on hands[5], is to be differentiated from ADFK. Microscopically fibromas are usually composed of abnormally dense connective tissue architecturally distinct from that of normal cutis. This is in contradistinction to the fibrokeratoma which is composed in large part, of protrusion of connective tissue closely resembling that of normal dermis. According to Pinkus[2] the elastic fibres practically always absent in true fibromas are always present in ADFK.

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