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CASE REPORT: ACQUIRED DIGITAL FIBROKERATOMA

Dermatology

Dr. Dama Kondaiah Naidu Postgraduate, Sree Balaji Medical College, Chennai
Dr. Aswin Senthilvel Postgraduate, Sree Balaji Medical College, Chennai
Dr. Raksha R N Postgraduate, Sree Balaji Medical College, Chennai

ABSTRACT

Acquired digital fibrokeratoma (ADFK) is a rare benign fibrous tumor of the skin, primarily affecting the digits. This report presents a case of ADF in a 25-year-old male with a solitary ADF on the right index finger, detailing the clinical presentation, histopathological findings, and treatment outcomes.

KEYWORDS

Aquired digital fibrokeratoma, Benign skin tumor.

INTRODUCTION

Acquired digital fibrokeratoma is a rare benign fibrous tumor that typically manifests as a solitary, small, asymptomatic, slow-growing lesion on the fingers or toes.[1] The etiology of ADFK remains unclear, though trauma has been suggested as a potential trigger. First described by Bart et al. in 1968, ADFK is often mistaken for other dermatological conditions such as cutaneous horn, rudimentary supernumerary digit, warts, periungual fibromas, and squamous cell carcinoma due to its clinical presentation.[2] Histopathological examination is essential for accurate diagnosis. This report describes a case of ADFK to enhance understanding of this condition.

Case Presentation

A 25-year-old male presented to the dermatology clinic with a solitary, painless, skin-colored lesion on the palmar aspect of his right index finger. The lesion had been present for approximately 18 months months and had gradually increased in size. The patient reported no history of trauma or infection at the site and there were no similar lesions elsewhere on his body.

On examination, a solitary, painless, firm, skin-colored pedunculated nodule of around 4 mm in diameter was noted over the palmar aspect of right index finger which was well-circumscribed, and non-tender, with a smooth surface and no signs of inflammation (Figure 1). The skin around the base of the pedunculated lesion was slightly raised. The differential diagnosis included rudimentary supernumerary digit, digital mucous cyst, palmar wart.

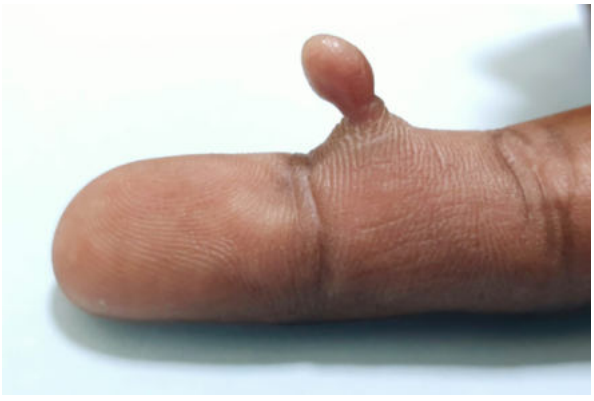

Figure 1: Clinical picture

Investigations

An excisional biopsy was performed under local anesthesia, and the specimen was sent for histopathological examination. Microscopically, the lesion showed acanthotic epidermis with hyperkeratosis and a fibrovascular core composed of dense collagen bundles. There was no evidence of cellular atypia or malignancy (Figure 2). These findings were consistent with ADFK.

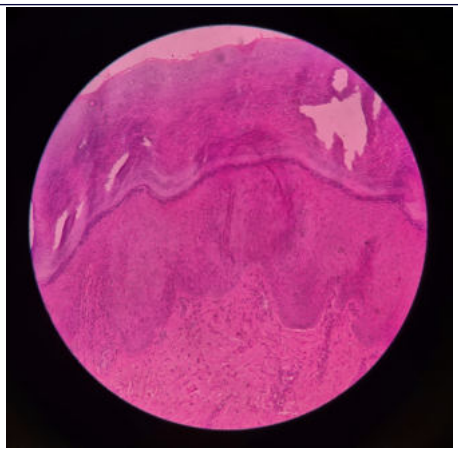

Figure 2: Histopathological image showing acanthotic epidermis with hyperkeratosis and a fibrovascular core composed of dense collagen bundles

Treatment

Complete excision of the lesion was achieved with clear margins. The wound was closed with primary sutures and healed without complications. The patient was advised to monitor the site for any signs of recurrence.

DISCUSSION

Acquired digital fibrokeratoma is a rare entity, with fewer than 200 cases reported in the literature. The etiology remains unclear, although minor trauma and chronic irritation have been suggested as potential contributing factors . ADFK typically presents in adults, with no significant gender predilection, and most commonly affects the fingers, particularly around the nail folds and interphalangeal joints.

Clinically, ADFK appears as a solitary, dome-shaped or horn-like nodule, usually measuring 2-5 mm in diameter. The surface may be smooth or hyperkeratotic, and the lesion is generally asymptomatic. Due to its benign nature, ADFK does not exhibit aggressive growth or metastatic potential. rudimentary supernumerary digit

Histopathologically, ADFK is characterized by a central core of dense collagenous stroma with variable fibroblast proliferation, surrounded by a hyperplastic epidermis.[3] The absence of cellular atypia and mitotic activity distinguishes it from malignant lesions such as squamous cell carcinoma and fibrosarcoma.

Complete surgical excision is the treatment of choice for ADFK, offering both diagnostic confirmation and therapeutic removal. Recurrence is uncommon following adequate excision. In this case, the patient remained free of recurrence at six-month follow-up.

CONCLUSION

Acquired digital fibrokeratoma is a rare benign tumor that should be considered in the differential diagnosis of digital nodules. Accurate diagnosis relies on histopathological examination, and complete surgical excision is the definitive treatment. Awareness of ADF and its clinical features can aid in prompt diagnosis and management, preventing unnecessary treatments for other suspected conditions.

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