

Acquired digital fibrokeratoma: report on a clinical case of a clinical case

Fibroqueratoma digital adquirido: a propósito de um caso clínico

ABSTRACT

Summary: Acquired digital fibrokeratoma is a rare benign fibroepithelial condition, which typically occurs as a solitary asymptomatic nodule in fingers and toes. The authors report the clinical case of a female patient affected by two digital fibrokeratomas in the 4th and 2nd left fingers, respectively.

Keywords: neoplasms, fibroepithelial; fibroma; finger injuries.

RESUMO

O fibroqueratoma digital adquirido é tumor fibroepitelial benigno, raro, que, tipicamente, se apresenta como nódulo solitário assintomático nos quirodáctilos e pododáctilos. Relata-se o caso clínico de uma paciente do sexo feminino que apresentava duas lesões de fibroqueratoma digital no quarto e no segundo quirodáctilos esquerdos.

Palavras-chave: neoplasias fibroepiteliais; fibroma; traumatismos dos dedos.

INTRODUCTION

Acquired digital fibrokeratoma (ADF) is a benign, fibrous tissue tumor that was first described by Bart et al. in 1968.¹ Its etiology is still unknown, with trauma being regarded as the most important predisposing factor. ADF usually presents as a single, smooth, asymptomatic, fingerlike monochromic nodule, that can be sessile or pedunculated. An important differential clinical sign is the presence of a collarette at the base of the lesion. ADF tumors do not undergo spontaneous regression, and are more common in adults.²

Case Report

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Diagnosis is carried out through histology in all cases, and is characterized by orthokeratosis, acanthosis and hyperkeratosis. Surgical excision is the treatment of choice.^{3,4}

CASE REPORT

A 52-year-old female patient with a history of diabetes mellitus, hypertension, and dyslipidaemia reported asymptomatic lesions in the fourth left finger for seven years and in the second left finger for a year. No correlation with trauma was described. Physical examination evidenced two elongated horn-like lesions of different dimensions. The lesion located on the fourth left finger measured 1.0 x 0.8 x 0.8 cm. The second tumor (second left finger), measured 0.3 x 0.2 x 0.1 cm. Both were located in the hyponychium, emerging distally, in the shape of a finger (fingerlike) (Figure 1). After dermatological examination, the following diagnostic hypotheses were considered: supernumerary finger, Köenen's tumor, verruca vulgaris (common wart), cutaneous horn, fibroma, and acquired digital fibrokeratoma. The patient was referred for surgical excision of the lesions (Figure 2), at which time a subsequent histological examination revealed a fingerlike type lesion (Figure 3), covered by an epidermis, with parallel collagen bundles observed in the stroma and an absence of nerve bundles with blood vessels (Figure 4).

DISCUSSION

This kind of tumor predominantly affects adult males over 40 years of age. It develops in the distal extremities, especially in fingers and toes, and can also occur on the lower lip, nose, elbow, pre-patellar region, nail bed, and heels.

With some exceptions, most cases reported in the literature describe lesions that are less than a centimeter long.⁵ According to Baykal et al., despite the scarcity of cases reported in medical literature, the frequency of ADF may be underestimated due to the fact that that tumor resembles many benign lesions that usually do not require routine histopathological examination.⁶

All extremity tumors that present elongated ends in the shape of projectiles (fingerlike), should be considered for ADF during a differential diagnosis. Other possible diagnoses are: supernumerary finger, common wart, cutaneous horn, pyogenic granuloma, Köenen's tumor, soft fibroma, neurofibroma and eccrine poroma.^{5,6}

A supernumerary finger, also called polydactyly, is described as a congenital lesion usually located at the base of the fifth finger, with a histopathology suggesting abundant nerve bundles.

In turn, the common wart often displays a roughened surface. Both the common wart and the supernumerary finger have an epidermal collarette, which is also seen in ADF.

A Köenen's tumor can be difficult to differentiate histopathologically and can be considered a variant of the disease because it often presents a small distal segment, with loose collagen,



Figure 1: Acquired digital fibrokeratoma, fingerlike type lesion



Figure 2: Intraoperative

several blood vessels, and a large proximal portion consisting of dense collagen bands and few capillaries. A Köenen's tumor is a lesion characteristic of tuberous sclerosis: not arising before puberty, emerging from the nail folds, being usually multiple and of pinkish or skin color, and located predominantly on the feet.

As with ADE, pyogenic granuloma presents with an epidermal collarette, however it is usually more friable and onsets suddenly. The cutaneous horn has a rough or warty surface, and has its main differential diagnosis in histopathology.^{2,6} Fibrokeratomas are benign fibroepithelial tumors marked by hyperkeratosis and acanthosis. The dermis is filled with thick collagen bundles occurring parallel to the tumor's axis. Elastic fibers will be thin, and while sparse, not completely absent and often very vascularized.^{4,7}

Kint et al. described three histological types: "dome shaped" lesion with elastic fibers and numerous dermal capillaries (Type I); particularly high and hyperkeratotic lesion with many fibroblasts and few elastic fibers (Type II); edematous lesion that alternates between a flat and "dome" reliefs, with few cells and no elastic fibers (Type III).⁸ The present case was compatible with Type I.

Surgical treatment leads to healing in most cases, and recurrence is rare (Figures 3 to 4).

CONCLUSION

The present case emphasizes the importance of this benign tumors' categorization – with fingerlike format – since it can be easily misdiagnosed for other common tumors during differential diagnosis. The present case has also shown the rare occurrence of the same kind of lesion arising in two different fingers. ●

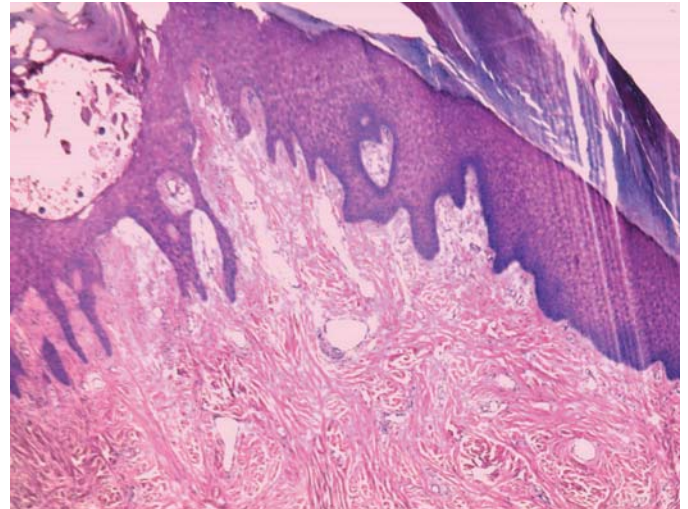


Figure 3: HE 4X: Fingerlike lesion's epidermal level histopathology

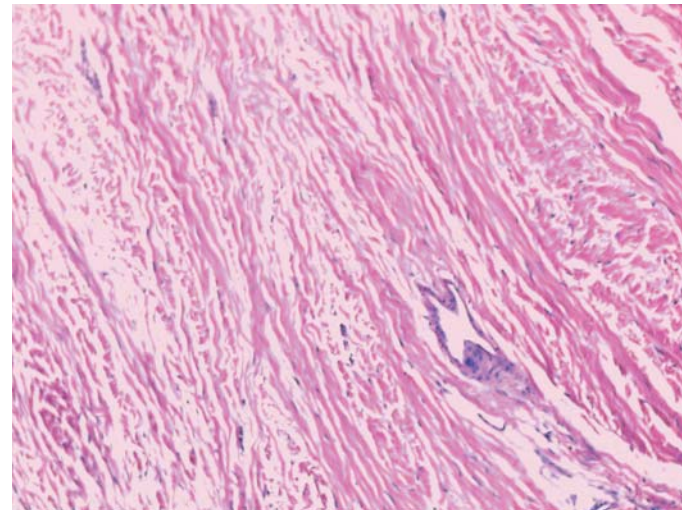


Figure 4: HE 10X: Histopathology evidencing parallel bundles of collagen with absence of nerves

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