

Photo Quiz

Keratotic Papule with a Collarette of Skin

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A 30-year-old female presented with a small, asymptomatic, dome-shaped lesion over the tip of her right middle finger [Figure 1] since the past 3 months. There was no history of preceding trauma. On examination, a small 4 × 4 mm keratotic papule was seen over the tip of the right third digit. The papule comprised a central mass surrounded by a keratotic rim [Figure 2]; it was firm and nontender on palpation. Excision biopsy of the lesion was done under local anesthesia and histopathological examination of the specimen revealed a central fibrocollagenous core [Figure 3] interspersed with multiple small blood vessels arranged in

groups. The central mass was surrounded by a hyperkeratotic and acanthotic epidermis with broad, wide, and elongated rete ridges [Figure 4] that at places were branched.

Question

What is your diagnosis?



Figure 1: Dome-shaped keratotic papule on the tip of the right middle finger



Figure 2: Flesh-colored keratotic papule with a collarette of raised skin at the base

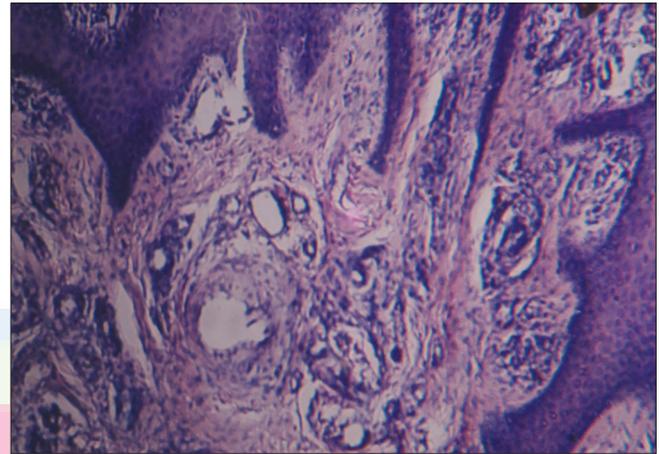


Figure 3: Fibrocollagenous core with blood vessels arranged in groups (H and E; 40×)

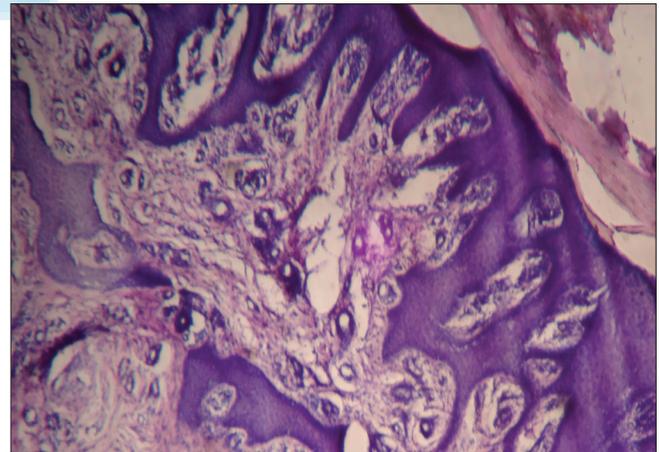


Figure 4: Hyperkeratotic, acanthotic epidermis surrounding the central fibrocollagenous core (H and E; 40×)

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Answer

Diagnosis: Acquired digital fibrokeratoma

Discussion

Acquired digital fibrokeratoma (acral fibrokeratoma) is a benign lesion that principally occurs on the fingers and toes.^[1] Some appear to originate from the proximal nail fold.^[2] It was first described by Bart *et al.* in 1968.^[3] It is usually seen in adults as a solitary dome-shaped lesion, with a warty surface and a collarette of slightly raised skin at its base. It may occasionally be elongated or pedunculated. Rare cases of familial multiple acral mucinous fibrokeratoma and multiple acral fibromas associated with familial retinoblastoma have been reported. These are possibly examples of cutaneous markers of tumor suppressor gene germline mutation.^[4,5]

Histopathology reveals a central fibrocollagenous mass with vertically oriented collagen fibers, surrounded by a hyperkeratotic epidermis with acanthosis and wide, elongated, branching rete ridges. Histopathological variants include a hypercellular form that is characterized by increased fibroblasts and a cell-poor variant that shows edematous dermis and scanty elastic fibers. Many of these lesions are highly vascular.^[6] Simple excision offers an effective cure. A rudimentary supernumerary digit is an important differential diagnosis as it has both clinical as well as histological resemblance. A rudimentary supernumerary digit, however, is

congenital and is almost always found at the base of the fifth finger. Histologically it can be differentiated by the presence of numerous nerve bundles at the base of the lesion.^[7] Other differential diagnoses include infantile digital fibromatosis, Koenen tumors of tuberous sclerosis, cutaneous horn, pyogenic granuloma, and verruca vulgaris.

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