

Erythematous Friable Papule Under the Great Toenail

What's the diagnosis?



A 20-year-old woman presented with a subungual growth of 1 year's duration that would intermittently bleed. Despite treatment with silver nitrate in 2 sequential treatments, the lesion continued to increase in size. Physical examination revealed a 6×7-mm erythematous, friable, well-defined papule under the medial aspect of the distal great toenail. Complete surgical excision of the lesion was performed.

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The Diagnosis: Subungual Eccrine Poroma

Histologic examination revealed a solitary papule (Figure 1). The epidermis was replaced with a well-defined proliferation of cuboidal and poroid cells. These cells demonstrated a downgrowth into the dermis in broad anastomosing bands that were surrounded by a fibrovascular stroma. Notably, there were few scattered foci of maturation into the ductal lumina of eccrine origin, which confirmed the diagnosis (Figure 2).

First described in 1956 by Goldman et al,¹ eccrine poromas are benign, slow-growing tumors that account for approximately 10% of sweat gland neoplasms.² Onset is typically in mid to late adulthood, and there is no ethnic or gender predilection. Classically, eccrine poromas present as soft, sessile, reddish papules or nodules measuring less than 2 cm that protrude from a well-circumscribed depression.

Although eccrine poromas can develop on hair-bearing regions, they most commonly arise on acral skin. In acral locations, bleeding, discharge, rapid growth, and localized pain can occur. These symptoms are even more common in this lesion's malignant counterpart, eccrine porocarcinoma.³

Solar damage, radiation exposure, trauma, and human papillomavirus have been indicated in the pathogenesis of eccrine poroma; however, the exact etiology has yet to be defined.^{2,4} The differential diagnosis includes nevus, pyogenic granuloma, acrochordon, basal cell carcinoma, and verruca vulgaris.⁵

Histologically, eccrine poromas consist of a combination of 5 distinct features: poroid cells, cuticular cells, intracytoplasmic or intercellular vacuolization

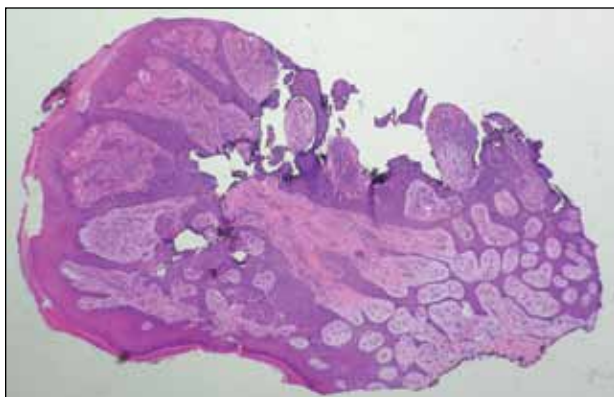


Figure 1. A solitary papule consisting of a proliferation of cuboidal and poroid cells (H&E, original magnification $\times 4$).

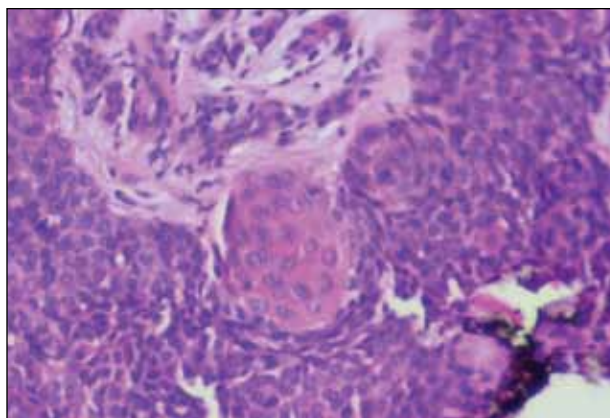


Figure 2. Scattered foci of maturation into the ductal lumina of eccrine origin (H&E, original magnification $\times 10$).

en route to duct formation, massive necrosis or necrosis en masse, and nuclear monomorphism of the poroid and cuticular cells.⁶ However, all 5 histologic features do not have to be present for the diagnosis. Classically, there is a sharp demarcation of the lesion from the surrounding epidermis.⁷

Treatment of choice is complete excision to prevent recurrence and risk for malignant transformation in long-standing lesions. One study of eccrine porocarcinomas found that 18% (11/62) arose from a benign preexistent poroma.⁸ These malignant lesions are found more commonly on the extremities and tend to show a slight female predominance.⁹

Although there have been 2 reported cases of subungual eccrine porocarcinomas^{9,10} and 1 case of periungual eccrine porocarcinoma,¹¹ according to an Ovid search using the terms *porocarcinoma* and *nail*, the benign subungual eccrine poroma is more rare.

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