Brown Plaque on the Calf: A Case of Hidroacanthoma Simplex

Though generally a benign lesion, hidroacanthoma simplex should be treated due to the low risk of malignant transformation.

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A 68-year-old Hispanic man with no prior history of skin cancer presented for evaluation of an easily bleeding pearly telangiectatic papule on the right nasal ala. Incidentally, on full skin exam, a 3.3cm by 3.7cm lesion was noted on his left medial lower leg (Figure 1). The anterior portion was characterized by a brown verrucous plaque. A centrally located erythematous and friable papule was present for as long as the patient could remember. Along the posterior border was a 1cm by 1.6cm macule of clearing where the patient rubbed off the plaque one year prior without recurrence. He reported more than 25 years of asymptomatic slow growth of the lesion to its current size. He reported that had no prior treatment to the site.

MICROSCOPIC FINDINGS

Histopathologic analysis of a hematoxylin and eosin stained shave biopsy (Figures 2, 3) showed well-circumscribed intraepithelial nests of basaloid cells with distinct nuclei and a rim of cytoplasm within an acanthotic epidermis. Focal areas demonstrated cellular atypia. Some nests contained cystic spaces. Necrosis *en masse* and pseudocystic spaces with remnant pyknotic cells and granular eosinophilic content were also visualized. The diagnosis of hidroacanthoma simplex with areas of cellular atypia was given.

CLINICAL COURSE

A large shave biopsy of the entire lesion was performed to search for regions of invasion, which were not found. Therapeutic options and malignant potential were discussed with the patient. Given the likely need for skin graft after wide excision, he decided to undergo curettage and desiccation with regular follow-up. In the case of recurrence, a wide local excision or Mohs surgery may be performed.

DISCUSSION

Hidroacanthoma simplex is a rare benign intraepidermal

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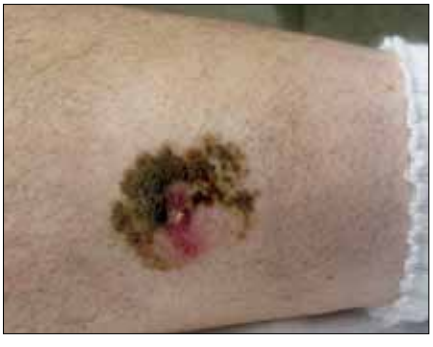

Figure 1. Patient diagnosed with hidroacanthoma simplex.

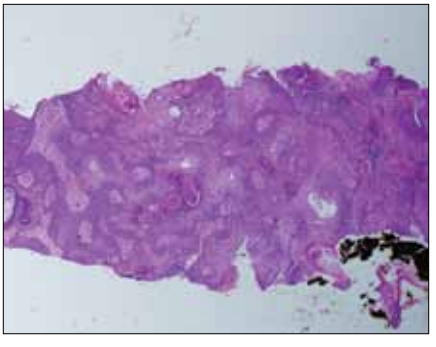

Figure 2

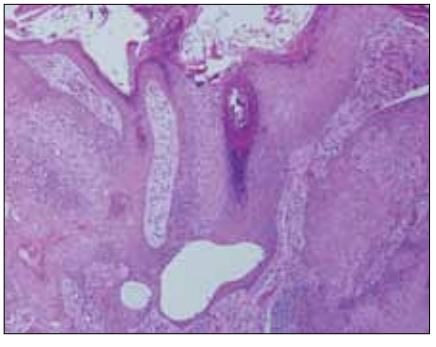

Figure 3

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eccrine neoplasm first described in 1956 by Smith and Coburn.[1] It is usually diagnosed clinically as a seborrheic keratosis, squamous cell carcinoma *in situ*, basal cell carcinoma, or a different adnexal tumor.[2-4] The most common locations for its appearance include the lower extremities and trunk.[2-4]

Hidroacanthoma simplex is a member of the poroma family of neoplasms, which also includes classic eccrine poroma, dermal duct tumor, and poroid hidradenoma.[5] Hidroacanthoma simplex is believed to be derived from the basal keratinocytes of the lower acrosyringium.[2,4] Hidroacanthoma simplex is superficially located, with well-defined islands of cells confined to the epidermis.[2] Conversely, classic eccrine poroma is characterized by massive proliferation of acrosyringium cells and abundant vasculofibrous stroma.[2] Whereas necrosis in a tumor is usually suggestive of malignancy, necrosis *en masse* is a typical feature of benign poromas.[4]

Rare cases are reported in the literature of transformation from benign hidroacanthoma simplex to malignant hidroacanthoma simplex, also known as eccrine porocarcinoma, with the potential for distant metastasis.[3,6,7] In cases of transformation, wide local excision with clear margins or Mohs should be performed.[7] Therapeutic options described in the literature for primary eccrine porocarcinoma include fulguration, cautery, simple excision, and radiation.[8] Regional lymph node dissection may be needed if lymphadenopathy is present.[9] Although it is considered a benign lesion, hidroacanthoma simplex should generally be treated, because of the low risk of malignant transformation. ■

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