Light-Brown Macule on the Upper Arm

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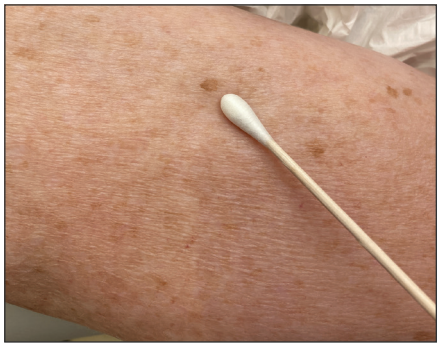

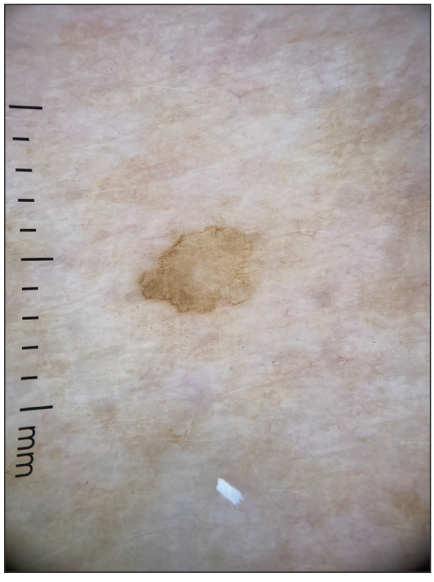

An otherwise healthy 61-year-old woman with a light skin tone presented to the dermatology clinic for evaluation of a pigmented lesion on the right anterior distal upper arm of approximately 6 months' duration. The patient reported no personal history of nonmelanoma skin cancer, atypical nevi, or melanoma but noted she had a family history of melanoma. Physical examination revealed an asymptomatic light-brown macule on the right anterior distal upper arm measuring about 3 mm with notable border irregularity and delineation. Dermoscopy findings showed a darker brown area at the lateral edge adjacent to the larger, amorphous, lighter-brown area with irregular brown globules present throughout the lesion. A biopsy of the lesion was performed.

WHAT'S YOUR **DIAGNOSIS?**

a. flat seborrheic keratosis
b. melanoma
c. pigmented actinic keratosis
d. pigmented Bowen disease
e. solar lentigo

PLEASE TURN TO PAGE 97 FOR THE DIAGNOSIS

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THE **DIAGNOSIS:** Pigmented Bowen Disease

Histopathology revealed atypical keratinocytes throughout the entire thickness of a pigmented epidermis extending from the basal layer (Figure). Diffuse epidermal hyperpigmentation and melanophages in the papillary dermis were present. There was no dermal invasion or atypical melanocytic proliferation. On dermoscopy, this lesion had small brown globules, smudging, and an asymmetric nonspecific homogeneous pattern. Based on these features as well as the clinical findings, a diagnosis of pigmented Bowen disease (PBD), a rare subtype of squamous cell carcinoma in situ, was made. Complete removal of the lesion was achieved via the biopsy, and the patient was counselled regarding the malignant but noninvasive nature of the lesion. Appropriate follow-up was recommended to monitor for recurrence.

Our case presentation of PBD on the right upper arm in a female patient with a light skin tone is not classic, as PBD lesions usually manifest as well-demarcated scaly plaques on sun-protected sites in men with darker skin tones who are in the sixth to seventh decades of life.[1]

Dermoscopy of PBD in patients with lighter skin tones can present diagnostic challenges because characteristic clustered glomerular vessels may be faint or absent, particularly in small lesions such as this one. In such cases, PBD may instead demonstrate structureless brown pigmentation and irregular globules, patterns that overlap with pigmented actinic keratosis (PAK) and melanoma.[3]

The differential diagnosis included PAK, which often shows a pseudonetwork of hyperpigmented dots or globules on dermoscopy; however, unlike PAK, which typically demonstrates cytologic atypia confined to the basal layer,[4] the lesion seen in our patient exhibited full-thickness epidermal atypia. Given the substantial clinical and dermoscopic overlap among pigmented premalignant and malignant lesions, histopathologic evaluation remains essential for accurate diagnosis.

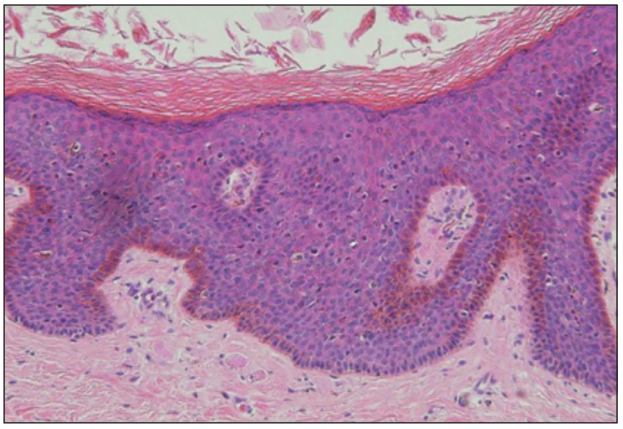

FIGURE. Histopathology of pigmented Bowen disease showing full-thickness keratinocyte atypia with nuclear pleomorphism and hyperchromasia. Diffuse epidermal hyperpigmentation was present with melanophages in the papillary dermis. No dermal invasion was identified (H&E, original magnification ×100).

Our case underscores the importance of maintaining a broad differential when evaluating small pigmented macules and reinforces biopsy as the diagnostic gold standard for PBD when dermoscopic findings are nonspecific.

REFERENCES

1. Mota AN, Piñeiro-Maceira J, Alves Mde F, et al. Pigmented Bowen's disease. *An Bras Dermatol*. 2014;89:825-827. doi:10.1590/abd1806-4841.20142725
2. Lee JW, Hur J, Yeo KY, et al. A case of pigmented Bowen's disease. *Ann Dermatol*. 2009;21:197-199. doi:10.5021/ad.2009.21.2.197
3. Markowitz O. *A Practical Guide to Dermoscopy*. Philadelphia, PA: Wolters Kluwer; 2017.
4. Fernández-Figueras MT, Carrato C, Sáenz X, et al. Actinic keratosis with atypical basal cells (AK I) is the most common lesion associated with invasive squamous cell carcinoma of the skin. *J Eur Acad Dermatol Venereol*. 2015;29:991-997. doi:10.1111/jdv.12848