Irregular pigmented lesion on the genital area

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A 56-year-old woman presented to the outpatient clinic with several months history of an irregular pigmented macule on her buttock [Figure 1]. A biopsy was performed [Figures 2 and 3].

The tumor most likely represents:

a. Malignant melanoma
b. Benign melanotic macule
c. Pigmented Bowen's disease
d. Pigmented Paget's disease
e. Pigmented basal cell carcinoma

Answer: C

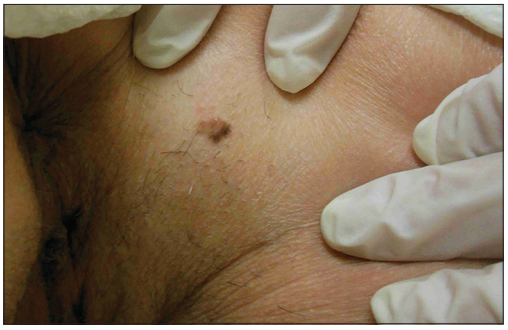

Figure 1: Irregular pigmented macule on her buttock

DISCUSSION

Bowen's disease of the anogenital region frequently presents as a pigmented lesion. The clinical differential diagnosis often includes superficial spreading melanoma, as well as an atypical melanocytic nevus, benign melanotic macule, pigmented basal cell carcinoma, seborrheic keratosis, and pigmented Paget's disease. In this case, the clinician suspected a diagnosis of malignant melanoma, but the biopsy demonstrated full-thickness epithelial atypia and disorder. The histopathological sections showed parakeratosis and atypical keratinocytes found throughout the epidermis. Atypical cells were seen in an intraepidermal buckshot pattern. The basal layer of the epidermis showed increased melanin pigment. The dermis showed no invasion of tumor cells.

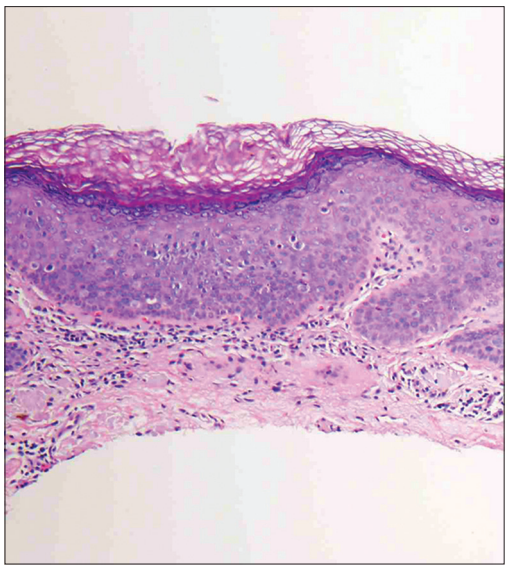

Figure 2: Epidermal disorganization with hyperproliferation and disorder of atypical keratinocytes (hematoxylin and eosin, x40)

The cells in genital human papillomavirus (HPV)-induced Bowen's disease are typically smaller than those of actinically induced or arsenic-associated lesions. Clonal growth is less common, and the diagnosis can be missed if attention is not paid to cellular density and architectural disorder. The small- to medium-sized cells fail to mature and flatten as they ascend toward the corneum. The cells are densely packed in a jumbled array, and overlying coarse hypergranulosis is common. *In situ* hybridization is commonly positive for high-risk types of HPV, most commonly HPV 16, 18, 31, and 33.[1]

Pigmented lesions of Bowen's disease represent 2%–7% of all the Bowen's disease cases, but are disproportionately represented in anogenital sites.[2,3] Pigmentation seen in PBD might be induced by specific types of HPV capable of inducing melanogenesis by mechanisms that are still unknown.[1] It has been suggested that these mechanisms involve specific cytokines produced by the neoplastic cells that may induce

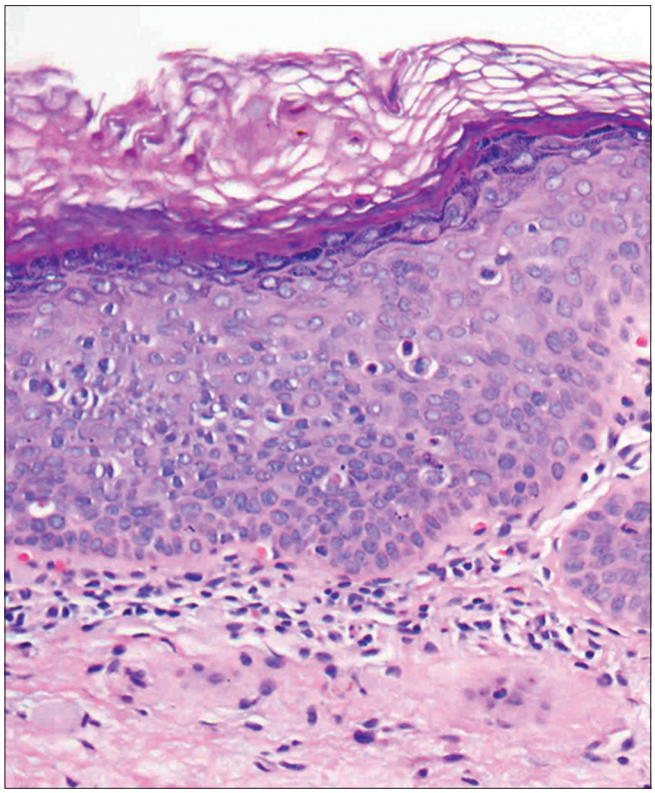

Figure 3: Higher power of view showing full-thickness anaplastic atypia, loss of polarity, buckshot scatter of atypical cells (hematoxylin and eosin, x100)

proliferation of melanocytes and thus increase production of melanin.[4]

Different modalities of treatment have been recommended, including surgical excision, photodynamic therapy using methyl aminolevulinate, topical 5-fluorouracil, imiquimod, and cryotherapy.[5]

Pigmented Bowen's disease should be considered in the differential diagnosis of pigmented skin lesions in the anogenital region. Biopsy will confirm the diagnosis and allow for appropriate therapy.

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