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# A pigmented lesion on the finger

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## The patient

A 42-year-old male, phototype III-IV, presented with an 8-month history of gradually enlarging pigmentation on the second finger of his left hand. He had no personal or familial history of skin cancer. No cryotherapy or other procedure was performed in this location. Naked-eye examination revealed an irregular hyperpigmented plaque extending from proximal to lateral nail fold, which appeared irregularly shaped and with fuzzy borders (Figure 1a).

Dermoscopy showed a brown-colored area displaying parallel pattern with pigment both in furrows and ridges and a white structureless area in the proximal nail fold; in the distal part of the lateral nail fold and in the hyponychia, a slightly verrucous area with irregular light brown pigmentation was noted (Figure 1b). Irregular pigmentation of acrosyringia was also observed.

Two punch biopsies were taken from the proximal and distal areas of the lesion. Histopathology reported acanthosis, hyperkeratosis and full thickness atypia of epidermal keratinocytes, and melanin in the lower epidermis (Figure 2).

### What is your diagnosis?

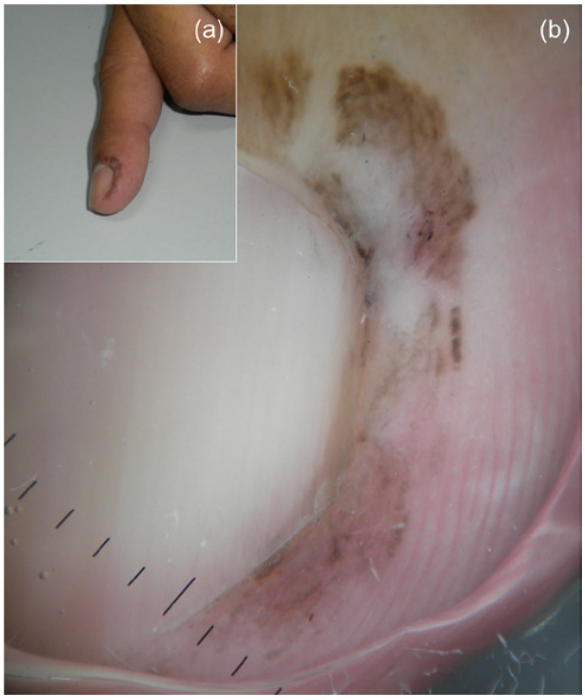


**Figure 1.** Clinical image showing an irregular hyperpigmented plaque on the second finger of the left hand (a). Dermoscopy showed a brown-colored area displaying a parallel pattern and a white-colored area in the proximal nail fold; in the distal part of the lateral nail fold and in the hyponychia, a slightly verrucous area with irregular light brown pigmentation was noted (b). Irregular pigmentation of acrosyringia was also observed (b, arrows). [Copyright: ©2015 Salerni et al.]

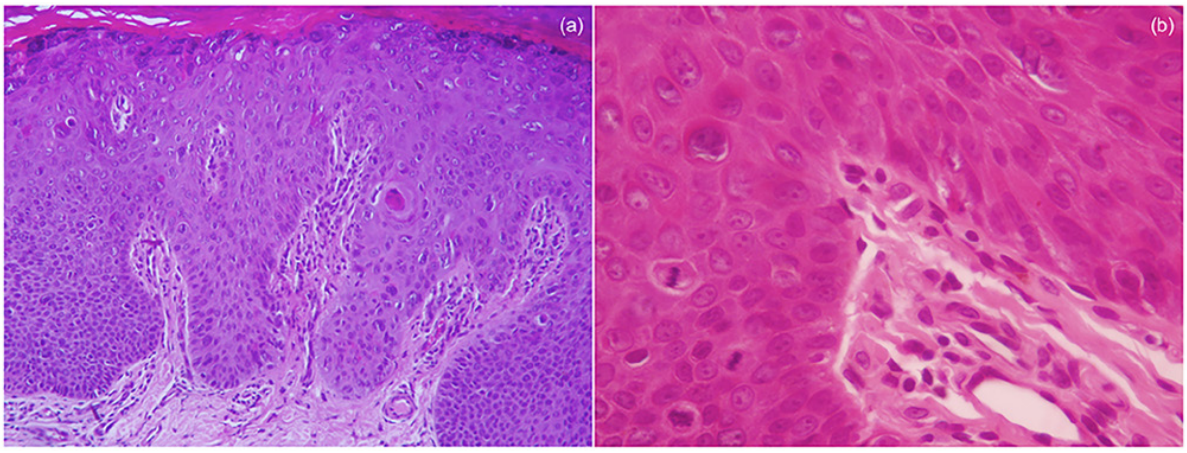


**Figure 2.** Acanthosis, hyperkeratosis and full thickness atypia of epidermal keratinocytes. Dilated capillaries in the dermal papillae and melanin pigment in the lower epidermis (a). Hematoxylin & eosin (H&E) x20. Large, round and hyperchromatic nuclei with mitoses were contained in dermal papillae (b). H&E x40. [Copyright: ©2015 Salerni et al.]

## Diagnosis

Pigmented Bowen's disease

## Clinical course

In a second procedure, the lesion was excised completely. Polymerase chain reaction sampling was positive for human papillomavirus (HPV).

## Answer and explanation

Bowen's disease (BD) is an in situ squamous cell carcinoma of the skin and mucous membranes that typically presents as a scaly erythematous plaque. BD can be induced by sun exposure, chronic arsenic exposure, radiation, trauma and human papillomavirus (HPV) infection. Pigmented Bowen's disease (PBD) is an unusual form of the disease, which generally presents as a hyperpigmented, well-demarcated plaque with a scaly or hyperkeratotic surface. Pigmented Bowen's disease (PBD) may clinically present with a variable amount of pigmentation and simulate seborrheic keratosis, actinic keratosis, basal cell carcinoma, atypical nevus, or melanoma [1-3]. Only few cases of PBD located on the finger have been reported in the literature [4,5].

Dermoscopy may be considered as a helpful tool for increasing the diagnostic accuracy of BD. Glomerular vessels plus a scaly surface was the most frequent combination of criteria in pigmented and non-pigmented BD. In PBD, small brown globules and/or homogeneous pigmentation can be seen in addition [1].

The correct classification of non-melanocytic origin of the lesion was therefore achieved only after histological evaluation. Despite its rarity, PBD should be included among those lesions that may simulate cutaneous melanoma.

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