

# A pigmented lesion on the sole

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The diagnosis of pigmented lesions is a daily challenge in general practice. Dermatoscopy can provide extra clues, but requires significant expertise. This series will help you hone your skills.

## Case presentation

A 39-year-old woman noted an asymmetrical dark mole over the medial aspect of her right posterior sole (Figure 1). The mole had appeared over the previous 12 months and measured 3 mm in diameter. Dermatoscopy showed a lattice-like pigment network with small brown globules. In the upper pole of the lesion the network was obscured by larger blue-black globules (Figure 2). Excision biopsy revealed a well developed epidermal rete ridge system with nests of melanocytes at their tips and also within the superficial dermis. The junctional and superficial dermal nests were deeply pigmented, but there was no atypia (Figure 3).

## Diagnosis

The final diagnosis was that of a benign, acral, lentiginous, compound naevus.

## Discussion

On dermatoscopy, pigmented lesions on the sole have distinctive patterns that can be divided into:

- a narrow linear pattern that is present within the furrows of the dermatoglyphics and reflects a benign lesion
- a broad ridge pattern that connects the furrows and is associated with melanoma.

In this case, the linear furrow pattern was apparent, but it was obscured by blue-black globules at the upper pole, prompting biopsy. The ridges of the epidermis corresponded to the furrows of the surface and contained the nests of melanocytes, while the pigmented nests in the dermis corresponded to the larger dark globules.

## Keypoint

Dermatoscopy is useful in evaluating small pigmented lesions on the sole, but some lesions may show areas of asymmetric homogenous pigment, prompting biopsy.

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Figure 1. Elongated dark mole on the medial aspect of the patient's right posterior sole.

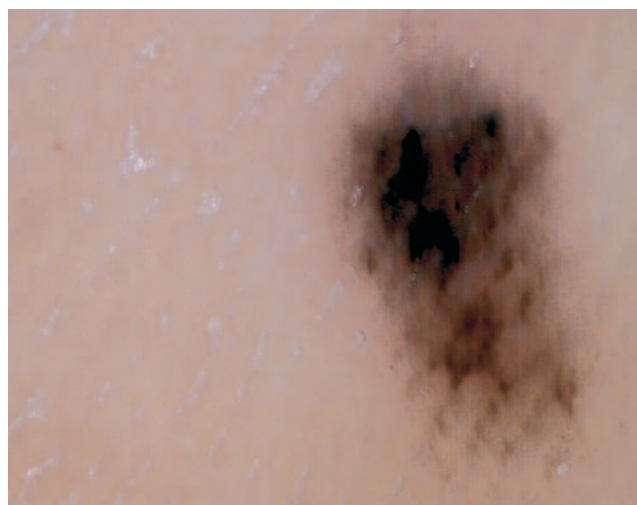


Figure 2. Dermatoscopy demonstrating a parallel narrow furrow pattern and homogeneous blue-black globules at the upper pole of the lesion.

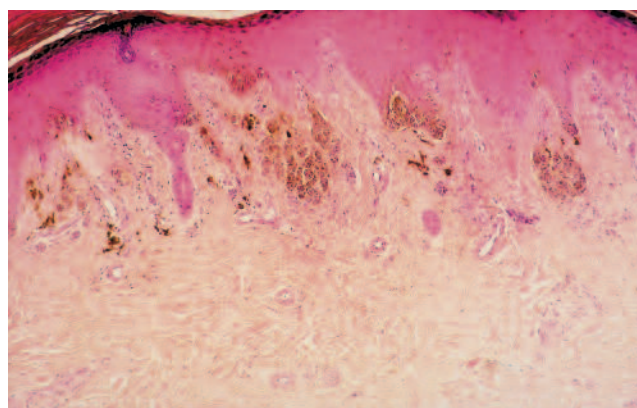


Figure 3. Skin biopsy revealing an epidermis with nests of melanocytes in the epidermal rete ridges (corresponding to the surface furrow) and pigmented nests in the superficial dermis.