Perspectives on dermatoscopy

A jet-black lesion with ragged borders

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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

On clinical examination, a 64-year-old man was noted to have a jet-black, 0.4 cm diameter lesion of unknown duration on his back (Figure 1). The surrounding skin showed marked sun damage. Dermatoscopy revealed a dark lesion (Figure 2) that had a central homogeneous black colour and an irregular periphery associated with blunt projections (pseudopods) and filamentous streams of pigment (radial streaming). Excision biopsy showed uniform naevus cells in the dermis and irregular, darkly pigmented intraepidermal melanocytes with atypical nuclei (Figure 3). The intraepidermal melanocytes were confluent and present both as nests and single cells.

Diagnosis

The final diagnosis was a superficial spreading melanoma *in situ* arising in a pre-existing mole.

Discussion

This small, dark black lesion would be clinically classified as a lentigo. Dermatoscopy was useful because the periphery showed asymmetrical radial streaming and pseudopods, and there were focal pale patches containing small blue–black dots (not visible in Figure 2). These features are highly correlated with melanoma. Symmetrical radial streaming can be seen in benign pigmented epithelioid cell naevi (Spitz naevi) and also in some combined blue naevi.

Keypoint

Dermatoscopy is particularly helpful in analysing small, darkly pigmented lesions (lentigines).

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Figure 1. Darkly pigmented lesion on the patient's back.

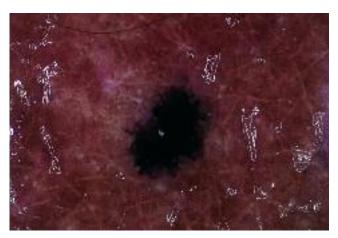


Figure 2. Dermatoscopy revealing an asymmetrical lesion with homogeneous central jet-black pigment and a ragged border with asymmetrical pseudopods and radial streaming.

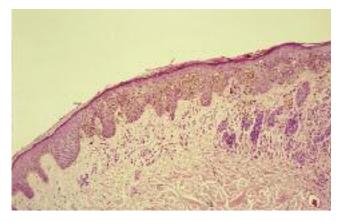


Figure 3. Skin biopsy showing a deeply pigmented epidermis with intraepidermal nests and single atypical melanocytes. The dermis had clusters of uniform benign naevocytes.