A brown blemish on a bronzed bricklayer

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With sufficient training and expertise, clinicians can use dermoscopy to improve diagnostic accuracy for melanocytic lesions and other common skin tumours.

Case presentation

A 62-year-old man presented with a longstanding pigmented macule on his right upper cheek (Figure 1). The lesion was first noticed five years previously and the patient reported that it had grown slowly from that time. The patient had worked for many years as a bricklayer, wearing no shirt and only a peaked cap as sun protection throughout summer. He had no personal or family history of melanoma.

On examination, an irregular and asymmetrical brown-black macule was visible that measured approximately 13 x 12 mm in diameter. Illumination with a Wood's lamp showed the lesion to be no more extensive than could be appreciated with the naked eye.

Dermoscopy revealed an irregular and asymmetrical pigment pattern. Specifically, the pigment network was broadened, with dark brown asymmetrical pigmented follicular openings and rhomboidal structures surrounding the follicular ostia; dark homogenous areas and blue grey dots and globules were also present (Figure 2).

Diagnosis

A shave biopsy confirmed the clinical suspicion of lentigo maligna.

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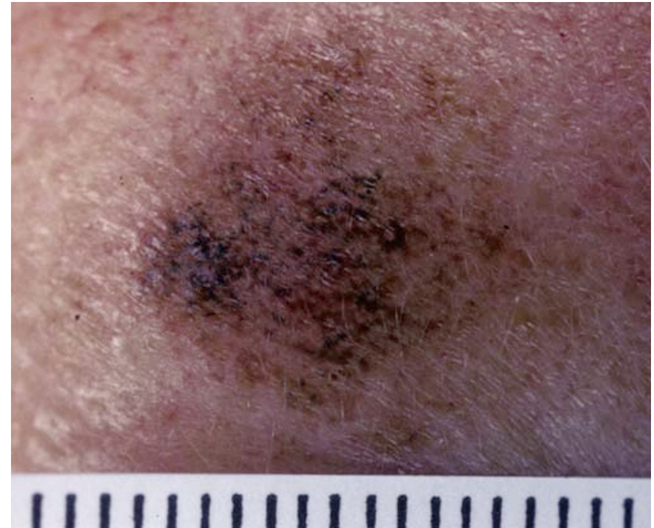

Figure 1. The atypical pigmented macule on the patient's upper cheek. The scale shown is marked in millimetres.

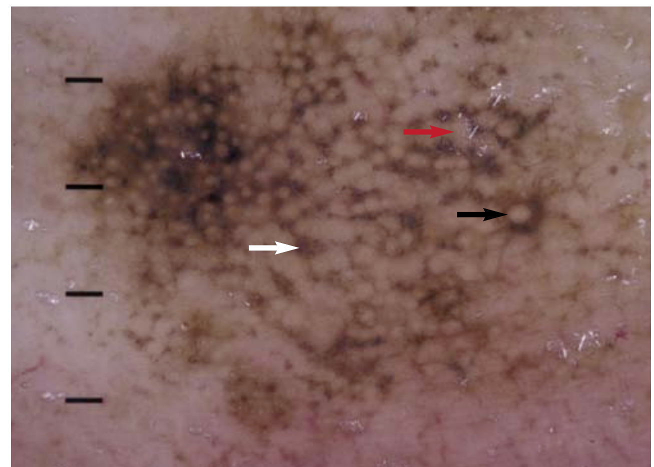

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Figure 2. Dermoscopy of the lesion revealed blue-grey dots (white arrow), asymmetrical pigmented follicular openings (black arrow) and rhomboidal structures (red arrow). The scale shown is marked in millimetres.

Discussion

Lentigo maligna (Hutchinson's melanotic freckle) represents melanoma *in situ*. It commonly presents as a variably pigmented patch on the head and neck of elderly patients with extensive sun damage to the skin.

Histologically, there is a proliferation of atypical melanocytes arranged in solitary units and small nests at the dermoepidermal junction. The major hallmarks of lentigo maligna on dermoscopy are blue-grey dots, asymmetrical perifollicular pigment, rhomboidal structures and the so-called 'annular granular' pattern

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of pigment; however, sometimes not all of these are present. Of these features, the rhomboidal structures are probably the most subjective to identify. Asymmetrical follicular openings are due to an uneven descent of atypical melanocytes around the hair follicle, whereas the blue-grey dots are due to aggregates of macrophages laden with melanin. The major differential diagnoses of lentigo maligna include solar lentigo and pigmented actinic or seborrhoeic keratosis.

Diagnosing recurrent lentigo maligna on severely sun damaged skin where clear histological identification becomes difficult is very challenging. Lentigo maligna that is amelanotic (pink or red) or clinically invisible (positive histology in the setting of seemingly normal skin) can be equally challenging to diagnose.

The lesions of lentigo maligna grow slowly and transformation to invasive melanoma (lentigo maligna melanoma) occurs unpredictably so management by observation is potentially hazardous. The gold standard treatment is margin-controlled excision, but standard excisional surgery with a 5 mm margin is more practical and is commonly performed. Occasionally, superficial radiotherapy is used when surgery is no longer feasible. Topical 5% imiquimod cream (Aldara) is a novel therapy that is showing some promise, although only in small case series to date.

Keypoint

Lentigo maligna should always be considered when assessing pigmented lesions on the head and neck in patients with sun damaged skin. Dermoscopic evaluation significantly improves the chances of making an accurate diagnosis. MT

Further reading

1. Wolf IH, Cerroni L, Kodama K, Kerl H. Treatment of lentigo maligna (melanoma in situ) with the immune response modifier imiquimod. Arch Dermatol 2005; 141: 510-514.

2. Menzies SW, Crotty KA, Ingvar C, McCarthy WH. An atlas of skin surface microscopy of pigmented skin lesions: dermoscopy. 2nd ed. Sydney: McGraw-Hill; 2002.

DECLARATION OF INTEREST: None.

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