

Melanoma or masquerader?

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Ink spot lentigos can masquerade as melanomas. Dermoscopy and excision may be needed to make an accurate diagnosis.

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CASE PRESENTATIONS

Case 1

A 30-year-old man presented for examination of a concerning lesion on his upper back. The darkly pigmented lesion was noticed by his partner. He was systemically well with no major comorbidities and no previous history of skin cancers. He admitted to frequent sunburns after brief sun exposure and occasional blistering sunburns in the past. The lesion on his back had caused concern because of its unusual appearance, dark colour and irregular border.

The patient had fair skin and fair hair. On examination, there were numerous moles, freckles and other lentigines on sun-exposed areas of his skin. There was a darkly pigmented lesion (4 x 2 mm) on his central upper back (Figures 1a and b). Dermoscopy showed a darkly pigmented macule with a focally thickened pigment network with holes (Figure 1c).

A clinical diagnosis of ink spot lentigo was made. The patient was reassured and advised to return if the lesion changed in appearance.

CASE 1



Figure 1a. A typical ink spot (arrow) on a patient with skin type II and numerous sun-induced freckles.



Figure 1b. Close up clinical image of the patient's ink spot lentigo.

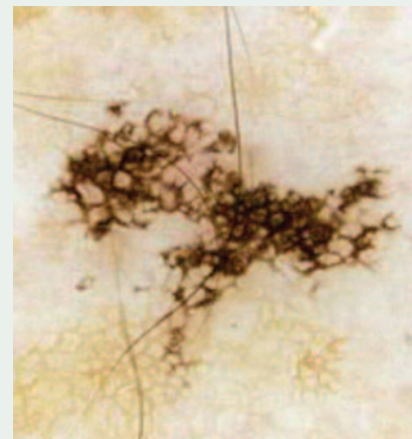


Figure 1c. Dermoscopy showing the classic appearance of the patient's ink spot lentigo with a broken-up pigment network.

CASE 2

Figure 2a. Small ink spot lentigo surrounded by sun-induced freckles.

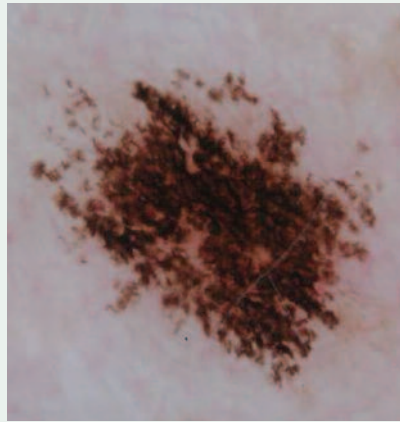


Figure 2b. The dermoscopic appearance of the patient's ink spot lentigo is less typical than that of case 1 prompting early biopsy in this case.

Case 2

A 23-year-old woman presented with a newly recognised pigmented lesion on her shoulder. She had no previous skin cancers or suspicious lesions. The pigmented macule had drawn her attention because of its black colour. She had a history of rapid burning on sun exposure and numerous freckles on exposed areas of the skin in the summer.

On examination, there was a darkly pigmented macule measuring a maximum of 2 mm in diameter on a background of numerous sun-induced freckles (Figure 2a). Dermoscopy showed an irregular lesion with an indistinct border and broad pigment network with holes (Figure 2b). A shave excision confirmed the clinical suspicion of ink spot lentigo.

DISCUSSION

The ink spot lentigo has also been called a reticulated black solar lentigo or acquired reticulated lentigo.¹ 'Ink spot' is perhaps the most memorable term and it accurately describes the appearance of these lesions when examined close-up. These darkly pigmented, acquired

macules are a result of solar damage in a fair-skinned individual.¹

Patients with these benign lesions can be expected to present occasionally in general practice and the lesions are often a cause for concern to both patient and doctor. The irregular appearance and dark brown or black colour of a new lesion can lead to a clinical diagnosis of melanoma in situ. Other differential diagnoses are listed in the box on this page.

Ink spots typically occur in the third to sixth decade of life on the back, shoulders or upper chest of patients with fair skin types. There are often many sun-induced freckles in the same region (Figures 1a, 1b and 2a). Multiple ink spots may occur but they are more often solitary. A history of sun exposure should be taken, and it is typical for the patient to recall the lesion arising after an episode of sunburn.¹

Ink spot lesions are usually about 2 to 5 mm in diameter and have a characteristic dermoscopic appearance (Figure 1c). This flat, reticulated pattern with a broken-up pigment network and uniform colour is due to hyperpigmentation

COMMON AND IMPORTANT DIFFERENTIAL DIAGNOSES OF INK SPOT LENTIGO

- Melanoma in situ/lentigo maligna
- Melanocytic naevus, junctional type
- Dysplastic naevus, junctional type
- Lentigo simplex
- Solar (actinic) lentigo
- Psoralen and ultraviolet A (PUVA)-induced lentigo

of basal keratinocytes interspersed by uninvolved 'skip' areas. Of note, there is usually no increase in melanocytes and no melanocyte atypia.¹

For comparison, the dermoscopic appearance of a reticular melanoma in situ is shown in Figure 3. It can be readily appreciated that there are marked differences between a melanoma and the classic ink spot lentigo.² Typical features of melanoma in situ – namely irregular dots and/or globules and irregular streaks – are, as a rule, not observed in ink spot lentigo and when present should be viewed as suspicious. However, the atypical broadened pigment network of a melanoma in situ and the broken-up pigment network of an ink spot lentigo may be difficult to distinguish for the dermoscopy novice and an excisional biopsy (simple excision or shave excision) should be performed in cases of uncertainty.

A high rate of 'lentiginous melanocytic proliferations' adjacent to early-stage melanomas has been reported.³ Although ink spot lentigo is not considered a precursor to melanoma, the risk factors overlap considerably and some patients may have both.¹ A full skin examination is always recommended for patients presenting with concern about a particular pigmented lesion. If the diagnosis of ink spot lentigo can be made confidently, the patient may be reassured that no

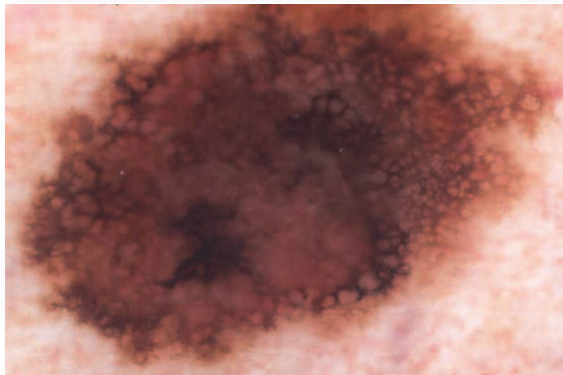


Figure 3. Dermoscopy of a typical melanoma in situ. There is an irregular, 'thick and fine' pigment network with hypopigmentation and amorphous regions with a grey hue.

action is required. Regular self-monitoring of the lesion should be advised as an additional precaution.

KEYPOINTS

- Ink spot lentigo can mimic melanoma in situ both to the naked eye and dermoscopically.
- Clinical and dermoscopic features in

conjunction with a typical clinical constellation may help make the diagnosis. These features can include: a patient with skin type I or II and a history of severe sunburn presenting with a small dark macule on the upper trunk with a broken-up, reticular pigment network with or without adjacent tiny dark spots.

- The practitioner should exclude other diagnoses, particularly melanoma in situ; however, if there is any doubt, the lesion should be excised by simple excision or shave excision for histopathological diagnosis. **MT**

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COMPETING INTERESTS: None.