

## Ink Spot Lentigo Arising on Naevus Spilus Simulating Melanoma

Georgiana Clare Marulli, Elena Campione, Alessandro Di Stefani, Luigi Citarella and Sergio Chimenti

Department of Dermatology, "Tor Vergata" University Hospital, Viale Oxford 81, IT-00133 Rome, Italy. E-mail:

giorgianaclare@libero.it

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Sir,

Naevus spilus (NS), also named speckled lentiginous naevus, is a congenital or more frequently acquired naevus clinically characterized by small hyperpigmented speckles overlying a tan macular background. The combination of NS with other melanocytic lesions, such as Spitz naevus (1, 2), blue naevus (3–7) or melanoma (9–17), has been observed occasionally.

In the present study we report an unusual association of NS and ink spot lentigo as an example of a clinical simulator of melanoma.

### CASE REPORT

A 32-year-old woman with type II skin was referred to our clinic because of a 30-year history of a NS located on the right scapula. On physical examination, a few solar lentigines were observed on sun-exposed areas. Family history was negative for melanoma. The lesion appeared as a 10-cm well-circumscribed brown patch speckled with numerous brownish macules and papules varying in size from 2 to 4 mm. In addition, a 2-mm black irregularly outlined area was present within the lesion (Fig. 1). The patient could not establish with certainty the time of appearance, which alerted us to the possibility of malignant transformation. Dermoscopic examination of the black area revealed an asymmetric reticular pattern with a thickened pigment network showing wide and irregular meshes typical of ink spot lentigo (Fig. 2). Histopathological findings of a punch biopsy of the last area confirmed the diagnosis of ink spot lentigo showing lentiginous hyperplasia of

the epidermis, marked hyperpigmentation of the basal layer with "skip" areas that involved the rete ridges (Fig. 3).

### DISCUSSION

During recent years, many reports of cases of melanoma arising in the NS area have been published – at least 20 in patients aged from 38 to 79 years (9–18), a few of them with a fatal outcome (9, 10, 14). The onset, in adult life, of irregularly sized and coloured plaques within a NS should therefore alert us to the possibility of malignant transformation.

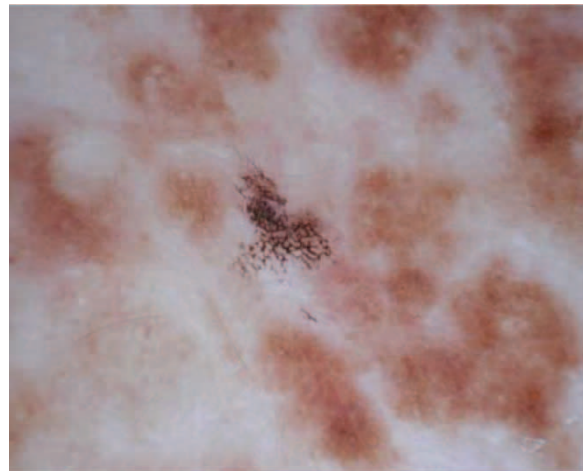


Fig. 2. Dermoscopic appearance of ink spot lentigo with irregular and markedly thickened pigment reticular pattern.

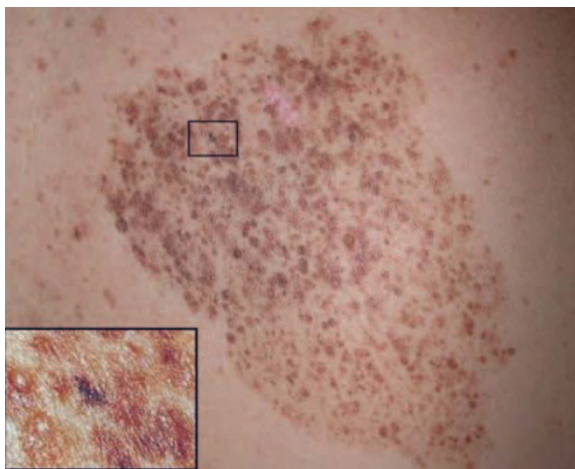


Fig. 1. Naevus spilus localized on the right scapula of the patient. Insert indicates a detail of ink spot lentigo.

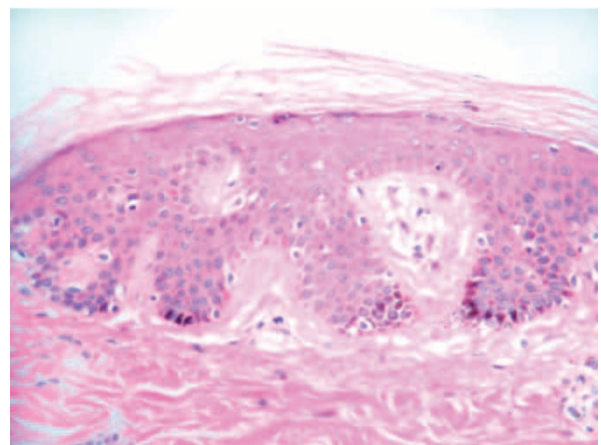


Fig. 3. Histopathology showing lentiginous hyperplasia of the epidermis, hyperpigmentation of the basal layer with "skip" areas that involved the rete ridges.

Although irregular outlines of pigmented lesions are often considered suspicious for melanoma, these features can also be observed in association with benign lesions, such as in the ink spot lentigo. This lesion was described for the first time by Bologna in 1992 (19) as a darkly pigmented type of solar lentigo with wiry or beaded, markedly irregular outline, thus clinically simulating melanoma *in situ*; the term "reticulated black solar lentigo or ink spot lentigo" was proposed. It commonly arises as a solitary lesion on the back of white individuals with type I or II skin and a history of severe sunburn, and it is surrounded by numerous sun-induced freckles. Age of onset is 30–40 years.

Besides the predisposing traits of our patient for ink spot lentigo, what is interesting is the onset of the lesion within a pre-existing NS. This occurrence may be merely coincidental, induced by UV light exposure of the patient; however, it has been postulated that NS may represent an environment in which the production of pigmented lesion is enhanced (19). Epiluminescence microscopy of ink spot lentigo is pathognomonic and reflects the particular epidermal architecture marked by pronounced pigmentation of the tips of elongated rete ridges and by the nearly complete absence of epidermal pigmentation covering the suprapapillary plates.

Although ink spot lentigo is regarded as a benign pigmented lesion, we recommend a clinical and dermoscopic follow-up using digital equipment and a punch biopsy of any suspicious area in order to avoid the possible occurrence of melanoma.

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