Achromic Superficial Spreading Melanoma Accidentally Treated with Imiquimod

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Accepted April 12, 2011.

Imiquimod (Aldara™, 3M Pharmaceuticals) is a member of the imidazoquinolone family of drugs. It is a topical treatment approved by the US Food and Drug Administration (FDA) for the treatment of external genital and perianal warts, non-hypertrophic actinic keratoses in immunocompetent individuals, and superficial basal cell carcinoma (1). Numerous off-label indications have been reported. Lately, imiquimod has been proposed for the treatment of superficial pigmented lesions, such as melanoma *in situ* and lentigo maligna (LM) (2).

CASE REPORT

A 42-year-old woman with Fitzpatrick skin phototype 2 presented to our unit with a pink, flat lesion on her back. She reported that the lesion had been treated with topical imiquimod in another unit, based on a diagnosis of basal cell carcinoma. As the lesion was constantly increasing in size 3 months after the discontinuation of imiquimod, the patient presented to our unit for a second opinion. Clinically the lesion was a pink macule, sized 1.4 × 1.5 cm (Fig. 1a), asymptomatic, with smooth borders and flat surface. Dermatoscopically a pink, featureless pattern was observed, with no pigmentation or vascular pattern (Fig. 1b). Due to the increase in size of the lesion, and the complete lack of response to imiquimod, we decided to excise it. Histology revealed a superficial spreading achromic malignant melanoma; Clark level: III; Breslow's depth: 0.53 mm with a large *in situ* component (Fig. 2).

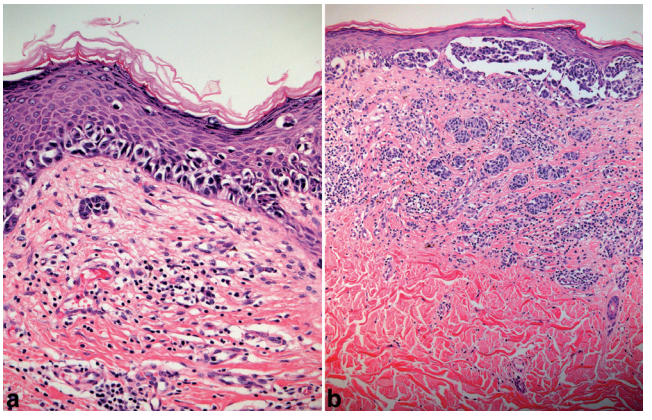

Fig. 2. Histology of the lesion. (a) Superficial spreading melanoma. Pagetoid melanocytic proliferation with severe uniform atypia "superficial spreading" type, thinning of the epidermis with attenuation of the basal and suprabasal layers, and loss of the rete ridges in area of direct contact with the neoplastic melanocytes can be seen. (b) Vertical growth phase with cluster of neoplastic cells in the dermis. (Haematoxylin and eosin ×20).

DISCUSSION

Although several data are available on the treatment of *in situ* malignant melanoma with imiquimod (3), data on the treatment of amelanotic lesions are insufficient to determine whether imiquimod can be considered as a possible treatment or not. Moreover, amelanotic melanoma is peculiar in its biological behaviour and aggressiveness (4). In our patient the lesion, accidentally treated with imiquimod for a wrong diagnosis, increased its size and did not respond. Two reasons can be hypothesized: the depth of the lesion (Breslow's depth: 0.53 mm) and its amelanotic nature. As mentioned pre-

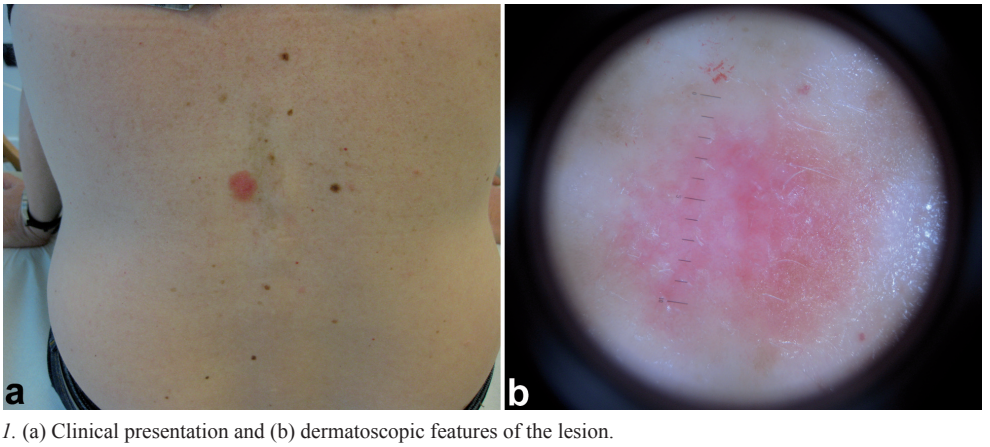

Fig. 1. (a) Clinical presentation and (b) dermatoscopic features of the lesion.

viously, even in non-melanoma skin cancer, imiquimod must be used only for superficial lesions. Great care must be taken in the assessment of a non-pigmented skin lesion, and histology may be necessary to rule out any amelanotic melanocytic lesion. Moreover, a lesion could be wrongly considered as *in situ* even if invasive, if the biopsy is performed in the wrong place. In addition, some cases of failure of imiquimod in treating histologically-confirmed LM with development of invasive lesions have been reported (5). The present case supports the idea that careful clinical and histological evaluation of any doubtful lesion should be performed when non-surgical treatment is planned, and that imiquimod should not be used to treat amelanotic or invasive melanocytic tumours. However, it must be emphasized that the "large *in situ* component" of the lesion described here also failed to respond to imiquimod. This, along with the other cases of imiquimod failure in treating *in situ* malignant melanocytic lesions reported in the literature, raises questions about the opportunity of treating even *in situ* malignant pigmented lesions with imiquimod.

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