Melanoma in situ mimicking a Lichen planus-like keratosis

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Summary. The incidence of melanoma has steadily increased over the past three decades. Melanoma in situ (MIS), defined as melanoma that is limited to the epidermis, contributes to a disproportionately high percentage of this rising incidence. Amelanotic melanoma presents as an erythematous macule or plaque and may initially be misdiagnosed as an inflammatory disorder. We report a case of amelonatic MIS raised on non-sun-exposed skin, inducing a lichen planus-like keratosis as inflammatory reaction, which clinically masked the melanoma. (www.actabiomedica.it)

Key words: dermoscopy, lichen planus-like keratosis, melanoma in situ

Introduction

The incidence of melanoma has steadily increased over the past 3 decades, being melanoma in situ (MIS) a disproportionately high percentage of the rising incidence (1-3).

The recognition of suspicious lesions even with the use of the dermatoscope sometimes becomes a real challenge especially for amelanotic melanoma in situ.

We report a case of amelanotic melanoma in situ mimicking an inflammatory lesion. The case is interesting from a clinical, histological and dermoscopy point of view.

Clinical case

A 70-year-old man presented with a 9-month history of a slowly growing and enlarging asymptomatic plaque on his leg. Clinical examination revealed an erythematous, scaly, not itchy, multifocal papule of 2 cm x 2.5 cm x 0.3 cm on the right pretibial area (Fig. 1).

Cross-polarized light epiluminescence dermoscopic examination revealed a disorganized pattern composed of scattered papules and plaques surmounted with polychromatic keratin scales (white, light brown and dark brown) underlayed by a pinkish background hue (Fig. 2).

Histopathologic examination of the excised lesion revealed a stratum corneum with basked wave hypercheratosis interrupted by irregular islands of hyper- and parakeratosis. The epidermis showed an acanthosis with irregular scattered melanocytes arranged in nests of different size and single cells at all levels of the epidermis. Single cells and nests also erupted into the stratum corneum (Fig. 3).

The basal stratum of the involved epidermis showed some vacuolization. The superficial dermis laying beneath revealed a dense lichenoid inflammatory infiltrate of lymphocytes with single plasma cells. There was focal fibrosis with extravasation of erythrocytes and increased number of capillaries. These findings were consistent with the diagnosis of melanoma in situ, Clark level I, under a lichen planus-like keratosis.

* equal contributions

Figure 1. Clinical presentation as scattered hyperkeratotic papules and plaques of 2 x 2,5 x 0,5 cm on the right pretibial area

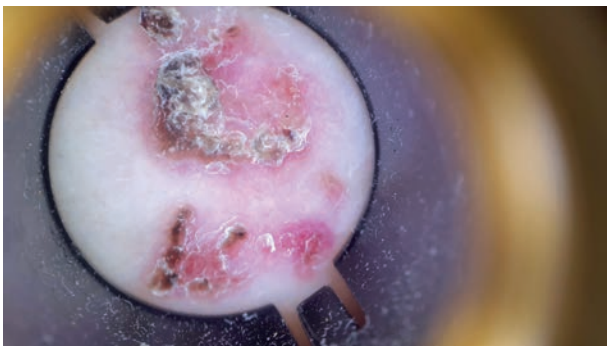

Figure 2. Cross-polarized light epiluminescence dermoscopic 10 x: disorganized pattern composed of scattered papules and plaques surmounted with polychromatic keratin scales (white, light brown and dark brown) underlayed by a pinkish background hue

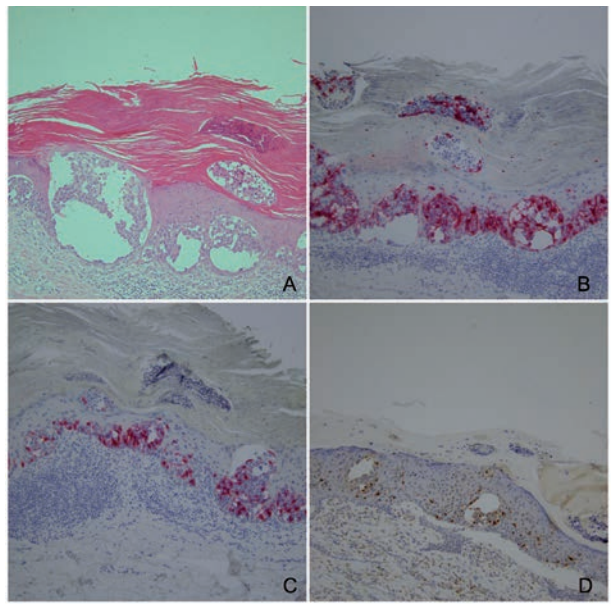

Figure 3. H&E 200x (A), HMB45 (B); Melan A (C); MITF (D). Immunohistochemistry results: HMB45 positive; Melan A positive; CAM5.2 negative; CK AE1/3 keratinocytes positive, melanocytes negative; EMA negative

Discussion

When considering MIS only, eight different dermoscopic subtypes have been proposed: reticular grey- blue, reticular, multicomponent, island, spitzoid, inverse network, net-blue globules, and globular. Of these, the reticular grey-blue is the most common. Amelanotic MIS presents as an erythematous macule or plaque and may initially be misdiagnosed as an inflammatory disorder. (1-3) The histopathologic diagnosis of melanoma in situ can be difficult and the use melanocytic markers like Melan-A, MITF, HMB45 helps to differentiate melanocytes from surrounding keratinocytes. (2) Excisional margins of 0.5 cm are considered the standard treatment for melanoma in situ (4,5). Clinical forms of amelanotic MIS pose a real challenge for the dermatologist. In our case, melanoma in situ raised on non-sun-exposed skin, and probably induced a lichen planus-like keratosis as inflammatory reaction clinically masking the melanoma. With dermoscopy the only suspected signs were a pinkish background and the partially pigmented scales. No similar cases of "MIS with lichen planus-like keratosis as inflammatory reaction (LPLK)" could be found in PubMed. The herein described lesion showed a different dermoscopic and histologic appearance then seborrheic keratosis-like melanoma or other collisions form seborrheic keratosis and melanoma (6-10). We suspect that the lichen planus-like keratosis was indeed induced by the melanoma cells as inflammatory reaction, as melanoma cells lie perfect and olny within the reaction pattern and also because no keratotic lesion was noted in this area before melanoma insurgence.

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