# Amelanotic Melanoma – "To Be or Not to Be"

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### Sir,

The incidence and mortality rate of malignant melanoma has been increasing in recent decades all over the world, representing a substantial public health problem. Early detection is crucial since survival is strongly related to tumour thickness and tissue invasion at time of diagnosis (1). Amelanotic melanoma comprises 2% (2) of all melanomas and has a worse prognosis due to delayed diagnosis. We report here 2 patients with amelanotic melanoma and the difficulties in making the diagnosis. In none of them was the diagnosis of amelanotic melanoma suspected at the onset.

### CASE REPORT

#### Case 1

A 56-year-old woman presented with a 5-year history of a steadily growing red lesion on the right lower cheek. It had been treated as rosacea for the last 3 years by her general practitioner to no sustainable effect. As the lesion had persisted and recently ulcerated, a superficial basal cell carcinoma was suspected and she was referred to our department. On clinical examination a  $2.5 \times 2.5$  cm intensely erythematous patch on the lower half of the right cheek was noted (Fig. 1). The margins were not distinct, and no ulceration or associated lymphadenopathy was present. A diagnostic incisional skin biopsy was performed, which revealed an amelanotic lentigo maligna with no invasion. The patch was widely excised and repaired by a local rhomboid flap with good cosmetic result. Histological examination of the second specimen showed invasive melanoma with a Breslow thickness of 0.9 mm, Clark level III. Immunohistochemistry demonstrated S100 and HMB 45 positivity.

#### Case 2

A 73-year-old man presented to his general practitioner with a 6-months history of a gradually increasing red patch on the right back. A superficial basal cell carcinoma was suspected and a punch biopsy was performed showing an amelanotic melanoma, which was why he was referred to our department. Past medical history included prostate cancer and previous basal cell carcinoma of the right temple. Clinical examination showed a  $2\times 2$  cm red patch on his right back (Fig. 2) with no ulceration or associated lymphadenopathy. The lesion was excised with a 2 mm margin. Histological examination revealed an invasive melanoma of 0.4 mm thickness, Clark level II. Immunostains were positive for S100 and Melan A. A wider re-excision was performed.

#### DISCUSSION

Survival in malignant melanoma is strongly related to tumour thickness and tissue invasion at time of diagnosis (1, 3) making early detection and diagnosis crucial.

Amelanotic melanoma comprises 2%(2) of all melanomas and may represent a primary melanoma, a recurrence of previously pigmented melanoma or a



Fig. 1. A 2.5×2.5 cm pink patch on the right cheek (case 1).



*Fig. 2.* A  $2 \times 1$  cm red patch on the back (case 2).

metastasis from primary pigmented melanoma (2, 4). Middle-aged women are predominantly affected, with a female:male ratio of 5:1 (5). Affected men are very fair-skinned and somewhat older. Sun-exposed areas are mainly involved, including the face in more than 50% of cases, followed by limbs, shoulders and back. Biopsy is essential in making the diagnosis. Wide surgical excision is the treatment of choice (2, 4, 5).

Diagnosis is a clinical challenge as the lesion can be mistaken for eczema, psoriasis, rosacea, actinic and seborrhoeic keratosis, granuloma annulare, discoid lupus erythematosus, Bowen's disease as well as basal cell carcinoma (2). Prognosis is often worse and has been mainly attributed to the delay in making diagnosis (6).

Amelanotic malignant melanoma is a great masquerade and our cases highlight the difficulty of clinical diagnosis. In any persistent non-resolving erythematous lesion a high index of suspicion and low threshold for skin biopsy is recommended. Our patients received a diagnostic skin biopsy because of atypical presentation and the suspicion of non-melanoma skin cancer. None of them had the recommended 2 mm excision margin biopsy performed on presentation. It is essential that dermatologists keep in mind the diagnosis of amelanotic melanoma when faced with an atypical presentation of a red patch.

## REFERENCES

- 1. MacKie RM, Hole D, Hunter JA, Rankin R, Evans A, Mc Klaren K, et al. Cutaneous malignant melanoma in Scotland: incidence, survival and mortality 1979–94. BMJ 1997; 315: 1117–1121.
- 2. Rahbari H, Nabai H, Mehregan AH, Mehregan DA, Mehregan DR, Lipinski J. Amelanotic lentigo maligna melanoma. Cancer 1996; 77: 2052–2057.
- 3. Breslow A. Thickness, cross-sectional areas and depth of invasion in the prognosis of cutaneous melanoma. Ann Surg 1970; 172: 902–908.
- 4. Ara M, Maillo C, Martin R, Grasa MP, Carapeto FJ. Recurrent lentigo maligna as amelanotic lentigo maligna melanoma. J Eur Acad Derm Venereol 2002; 16: 506–510.
- Conrad N, Jackson B, Goldberg L. Amelanotic lentigo maligna melanoma: a unique case presentation. Dermatol Surg 1999; 25: 408–411.
- Huvos AG, Shah JP, Goldsmith HS. A clinicopathologic study of amelanotic melanoma. Surg Gynecol Obstet 1972; 135: 917–920.