Red eczematous melanoma: a case report with review of the literature

Paolo Rosina
Anastasia Papagrigoraki
Ramona Zanniello
Chiara Colato
Giampiero Girolomoni

1 Section of Dermatology and Venereology, Department of Medicine, University of Verona, Verona, Italy
2 Section and Department of Pathology, University of Verona, Verona, Italy

Address for correspondence:
Paolo Rosina, MD
Section of Dermatology and Venereology
University of Verona
Piazzale A. Stefani 1
37126 Verona, Italy
Phone: +39 0458122547; Fax: +39 0458027315
E-mail: paolo.rosina@univr.it

Summary

Eczematous melanoma is a rare form of amelanotic melanoma appearing clinically as an erythematous macula or plaque, and dermoscopically characterized by the reduction or absence of pigmented network, resulting difficult for an early suspicion and detection. We describe a case of an amelanotic melanoma presented as a reddish, asymptomatic, non-pigmented scaly plaque localized on the left shoulder of a 78-year-old male patient. Histological examination revealed an ulcerated superficial spreading melanoma (Breslow thickness 0.85 mm and Clark level III), associated with epidermal spongiosis and lymphocytic inflammatory infiltrate. A review of the clinical, histological and dermoscopic features of the other 12 published similar cases revealed that eczematous amelanotic superficial spreading melanoma is quite rare, equally distributed in both sexes, more frequent in the elderly, mostly localized at the extremities and usually diagnosed at an advanced stage.

KEY WORDS: amelanotic; melanoma; eczematous; scaly.

Introduction

Amelanotic melanoma is a subtype of cutaneous melanoma with no or modest pigment at visual inspection and tends to occur in sun-exposed areas, especially in photo damaged skin (1). Amelanotic melanoma can clinically simulate superficial basal cell carcinoma, actinic keratosis, Bowen’s disease, acanthoma, Merkel cell carcinoma, hemangioma, Paget’s disease, and thus presents a high misdiagnosis rate (2). Dermoscopic evaluation may improve suspicion and early diagnosis (3). Few studies have reported amelanotic melanoma presenting primarily as an eczematous plaque (1, 2, 4-9). We describe a case of a superficial spreading eczematous amelanotic melanoma presented as a reddish, scaly, asymptomatic, non-pigmented lesion of the left shoulder, with review of similar cases reported in the literature.

Case report

A Caucasian 78-year-old male patient presented with a 5-month history of an enlarging reddish, non-pigmented, scaly plaque of 10x6 mm on the left shoulder (Figure 1). The patient denied any pain or pruritus over the area, and previous history of skin cancer or other malignancy. He had several actinic keratosis of the scalp formerly treated with cryotherapy. His medical history was only significant for liver steatosis and two thyroid nodules. Dermoscopy resulted atypical, revealing ulceration, irregular vascular pattern and absence of pigmentary network, globules or other features indicative for a melanocytic lesion. The vascular pattern was characterized by a marginal distribution of hairpin vessels with a central arrangement of irregular dotted and a few linear vessels (Figure 2).

The clinical characteristics have induced surgical removal with a suspected diagnosis of basal cell carcinoma versus Bowen’s disease. Histological examination revealed an ulcerated superficial spreading melanoma (Breslow thickness 0.85 mm and Clark level III), associated with epidermal spongiosis and lymphocytic inflammatory infiltrate. A review of the clinical, histological and dermoscopic features of the other 12 published similar cases revealed that eczematous amelanotic superficial spreading melanoma is quite rare, equally distributed in both sexes, more frequent in the elderly, mostly localized at the extremities and usually diagnosed at an advanced stage.

Mitotic rate was 4 mitoses/mm². Furthermore, epidermal spongiosis and crusted superficial area were observed. Immunohistochemical marker’s analysis resulted positive for Human Melanoma Black 45 (HMB45), Melanoma Antigen Recognized by T-cell 1 (MART-1-Ag) and S100 protein. Resection margins were negative for neoplastic cells and there was no evidence of micrometastases in the sentinel node. Imaging studies were negative for metastatic lesions. The patient had no recurrence of the disease after five years of clinical follow-up.
Amelanotic melanoma represents 1.8% to 8.1% of all cutaneous melanomas (8). The clinical term amelanotic implies that the tumour lacks any pigmentation on visual inspection. A review of the literature suggests that the term is often used more loosely to include tumours only partially devoid of pigment; truly amelanotic lesions are rare (10). Due to the lack of the characteristic pigmentation they are still a challenge, difficult to early diagnose (11), and may be confused with a variety of conditions, both benign and malignant (8). The two major variants of amelanotic melanoma are the verrucous and the polypoid forms, both occurring more frequently at the mucosa (12). A further, albeit rare, red eczematous variety has also been observed. Only 13 cases, including the present one, of amelanotic malignant superficial spreading melanoma resembling asymptomatic, erythematous, eczematous, scaly plaques have been reported so far in the literature (PUBMED research from January 1980 to December 2013; terms: melanoma, amelanotic, red, eczematous, crust, scaly, bowen’s, basal cell carcinoma, spongiosis). Table 1 describes the characteristics of the reported cases (1, 2, 4-9). The tumour results equally distributed in both sexes, mostly in the elderly (61.6 years ± 10.28; mean age ± SD) and localized mainly in the extremities. Clinically resembles more frequently a Bowen’s disease (eight out of 13 patients), and at the time of diagnosis has already infiltrated dermis, presenting a mean Breslow thickness and a mean Clark level of 0.59 mm and III, respectively. When dealing with chronic eczematous lesions that are resistant to topical treatment, amelanotic melanoma should be included in the spectrum of the differ-

Discussion

Amelanotic melanoma represents 1.8% to 8.1% of all cutaneous melanomas (8). The clinical term amelanotic implies that the tumour lacks any pigmentation on visual inspection. A review of the literature suggests
A rare clinical differential diagnosis that should also be considered is the Meyerson’s phenomenon, an eczematous reaction surrounding pre-existent melanocytic nevi and/or melanomas (13). In the latter case though, melanoma results centrally localized, well distinguished dermoscopically and the eczematous reaction presents with an erythematous halo adjoining the tumour.

There is increasing evidence that dermoscopy can be helpful in the diagnosis of hypopigmented and amelanotic tumours by carefully observing the alteration of vascular structures with polymorphous vascular pattern, in particular the combination of linear irregular and dotted vessels (14, 15). However, the probability to narrow down all differential diagnoses and clinically recognize an amelanotic melanoma, even for the most expert specialist, may be quite limited (14). Hence, in presence of an amelanotic lesion, with dermoscopical irregular vascular pattern, an early biopsy is mandatory (16).

Table 1 - Summary of 13 observed patients with eczematous amelanotic melanoma, presenting as a scaly erythematous plaque.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Patient</th>
<th>Sex</th>
<th>Age</th>
<th>Site</th>
<th>Suspected diagnosis</th>
<th>Breslow thickness</th>
<th>Clark level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Koch et al. (8)</td>
<td>1</td>
<td>M</td>
<td>52</td>
<td>Left shoulder</td>
<td>Scc</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>Koch et al. (8)</td>
<td>2</td>
<td>F</td>
<td>61</td>
<td>Chest</td>
<td>Bcc</td>
<td>1.1</td>
<td>IV</td>
</tr>
<tr>
<td>Koch et al. (8)</td>
<td>3</td>
<td>M</td>
<td>53</td>
<td>Upper back</td>
<td>Bowen’s disease</td>
<td>0.9</td>
<td>III</td>
</tr>
<tr>
<td>Koch et al. (8)</td>
<td>4</td>
<td>F</td>
<td>72</td>
<td>Left big toe</td>
<td>Bcc vs Scc</td>
<td>0.94</td>
<td>III</td>
</tr>
<tr>
<td>Mensing et al. (1)</td>
<td>5</td>
<td>M</td>
<td>72</td>
<td>Left elbow</td>
<td>T cell Lymphoma</td>
<td>0.6</td>
<td>III</td>
</tr>
<tr>
<td>Cheung et al. (2)</td>
<td>6</td>
<td>F</td>
<td>ND</td>
<td>Left heel</td>
<td>Scc vs Bowen’s disease</td>
<td>1.1</td>
<td>IV</td>
</tr>
<tr>
<td>Gualandri et al. (9)</td>
<td>7</td>
<td>M</td>
<td>55</td>
<td>Leg</td>
<td>Bowen’s disease</td>
<td>In situ</td>
<td>I</td>
</tr>
<tr>
<td>Gualandri et al. (9)</td>
<td>8</td>
<td>F</td>
<td>61</td>
<td>Leg</td>
<td>Bowen’s disease</td>
<td>0.42</td>
<td>II</td>
</tr>
<tr>
<td>Holder et al. (7)</td>
<td>9</td>
<td>F</td>
<td>67</td>
<td>Right shoulder</td>
<td>Bowen’s disease</td>
<td>In situ</td>
<td>I</td>
</tr>
<tr>
<td>Prieto et al. (6)</td>
<td>10</td>
<td>M</td>
<td>71</td>
<td>Chest</td>
<td>Bcc/Scc</td>
<td>In situ</td>
<td>I</td>
</tr>
<tr>
<td>Tschen et al. (5)</td>
<td>11</td>
<td>F</td>
<td>53</td>
<td>Right forearm</td>
<td>Bowen’s</td>
<td>0.45</td>
<td>II</td>
</tr>
<tr>
<td>Goldberg DJ (4)</td>
<td>12</td>
<td>M</td>
<td>45</td>
<td>Right arm</td>
<td>Bowen’s</td>
<td>0.75</td>
<td>ND</td>
</tr>
<tr>
<td>Current Report</td>
<td>13</td>
<td>M</td>
<td>78</td>
<td>Left shoulder</td>
<td>Bcc vs Bowen’s disease</td>
<td>0.85</td>
<td>III</td>
</tr>
</tbody>
</table>

M, male patients; F, female patients; Scc, squamous cell carcinoma; Bcc, basal cell carcinoma; ND, no data.

Disclosure

Funding sources: none. Conflict of interest: none to declare.

References

Red eczematous melanoma


