Unusual presentation of more common disease/injury

Giant melanoma of the scalp – discussion of a rare clinical presentation

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Correspondence to Dr Cornelia S L Müller, c_mueller1977@yahoo.de**Summary**

An 84-year-old woman presented with ulcerated scalp lesions that had been mistreated as acute haemorrhagic eczema for several months. Examination showed confluent purple-blue-grey macules, papules and nodules covering a great portion of the parietofrontotemporal scalp with focal areas of ulceration. Dermatopathologic examination of two 5 mm punch biopsies confirmed an invasive malignant melanoma (Breslow thickness of 5 mm, clark level V). In addition, lymphangiosis melanomatosa, intravascular tumour growth and a diffuse infiltration of the subcutaneous tissue were seen. Possible treatment options (eg, surgery, irradiation, intralesional treatment) were discussed with the patient, but declined. It is important that clinicians are aware that melanomas may be large and biopsies are mandatory to avoid delayed diagnosis. Thus, a dermatologist has a pre-eminent position in diagnostic procedure.

BACKGROUND

We reported this case because ‘giant’ malignant melanoma is rarely seen in dermatological practice. It is therefore important to be aware that such cases do exist and psychiatric comorbidity often leads to protraction of correct diagnosis and beginning of any therapy.

CASE PRESENTATION

An 84-year-old woman with dementia presented to the outpatient service of our dermatology department. Upon clinical examination, we found confluent purple-blue-grey macules, papules and nodules covering most of the parietofrontotemporal scalp. Focal areas of ulcerations were observed in the confluent regions. In addition, we found satellite lesions on the neck, forehead and face (figure 1A). Dermoscopy was not performed.

Previous working diagnosis of the family's doctor was haemorrhagic eczema of the scalp. Hence, the patient felt disturbed by an increasing itch of the scalp, which could not be controlled by local application of mometasone. Within few weeks, rapid growth of purple lesions was recognised. Presentation of the patient to our department was finally initiated by the daughter, when ulceration of the lesion appeared.

INVESTIGATIONS

Two 5 mm punch biopsies were obtained from the forehead and capillitium frontoparietal and revealed a malignant melanoma. Interestingly, acantholytic changes were observed, resulting in separation of parts of the tumour cells. In addition, lymphangiosis melanomatosa, intravascular tumour growth and a diffuse infiltration of the subcutaneous tissue were seen (figure 1B, C).

A non-invasive screen using cranial and thoracoabdominal CT revealed small pulmonary lesions suspicious for pulmonary metastases. Puncture of this pulmonary lesion to prove malignancy was declined. A lymph node ultrasound

showed no metastasis. S100 protein levels were increased (0.72 µg/l; normal level, <0.105 µg /l). Lactate dehydrogenase and alkaline phosphatase levels were in the normal range.

TREATMENT

We informed the patient and her daughter of the poor prognosis of this giant and rapidly progressive malignant melanoma. Possible treatment options were discussed including surgery, irradiation, intralesional treatment and palliative chemotherapy with dacarbazine every 4 weeks. The patient and her daughter finally decided against all treatment options.

OUTCOME AND FOLLOW-UP

At the 1.5-month follow-up, the patient presented with multiple satellite filiae on the upper body. A lymph node ultrasonography showed no metastasis in the lymphatic system at all. At the 3-month follow-up, the patient was still alive.

DISCUSSION

Thick melanomas are relatively common, but giant melanomas covering whole parts of the body are rarely observed. These patients are of high risk for metastatic disease.¹

In majority of the cases, patients consult dermatologists or practitioners not because of the tumour itself, but because of pain, the lack of an appropriate piece of clothing or decoration (eg, watches) to cover it up, as in our case because of itching and weeping.^{2 3} Other cases suggested that underlying diseases, for example, depression can worsen the prognosis because of delayed diagnosis.⁴ Significant psychiatric and psychosocial comorbidity is present in at least 30% of dermatologic patients.⁴ In our case, it is possible that dementia delayed the diagnosis, as the patient herself was unable to observe anything unusual, except for the itch.

Figure 1 (A) Clinical presentation upon first dermatologic consultation, (B) histomorphology of a 5 mm punch biopsy; H&E, 200 $\times$: pandermal proliferations of highly pleomorphic, focally pigmented melanocytes can be seen and note the missing maturation of deep seated melanocytes as a sign of malignancy, (C) detailed histomorphology; H&E, 600 $\times$: in detail, cytomorphology of the tumour cells reveals the malignant nature of the tumour and note the mitotic figure in the middle of the picture.

As it is the case presented, elevated S100 serum levels are an independent prognostic marker and an additional clinical parameter for progression of metastatic disease.⁵ Hence, due to great tumour load the elevated S100 serum levels can be expected in this setting.

From dermatopathologist's point of view, it is worth mentioning that morphologic features of these giant

melanomas (upon H&E-stain as well as immunohistochemically) are usually similar to those of other superficial spreading with vertical growth melanomas.⁶

More rapid diagnosis of malignant melanoma probably would not have any impact on general outcome of the patient, due to known prognostic parameters (eg, depth of invasion), but surgical treatment would have been much easier in the setting of smaller tumour masses. Intralesional therapy is an option of treatment for cases, when side effects of systemic treatment due to older age of the patient and high risks of extensive surgery are expected. For example, injection of the BCG vaccine, cidofovir or rose Bengal, a water-soluble xanthine dye, have been used for local control of malignant melanoma. For metastatic melanoma, intralesional bleomycin plus electrochemotherapy has been shown to be a potential palliative treatment modality.⁷

In conclusion, we report the case of an old woman with dementia, who presented with a 'giant' melanoma of the scalp. Unfortunately, missing consultation of a dermatologist in an early stage of the disease as well as psychiatric comorbidity led to protraction of correct diagnosis and beginning of any therapy.

Learning points

- Giant melanomas are rarely seen in daily dermatological practice and only a few similar cases worldwide have been reported to date.
- It is therefore important to be aware of this entity, take biopsies and reveal the diagnosis as early as possible.
- Psychiatric comorbidity led to protraction of correct diagnosis and beginning of any therapy.
- Optimal treatment, if possible, consists of a total surgical excision of the tumour in early stages with sentinel lymph node biopsy.

Competing interests None.

Patient consent Obtained.

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