Pigmented Lesion on the Cheek: A Quiz

Ines Zaraa, Anis Dammak, Hela Tounsi, Meriem Amouri, Mourad Mouaffek, Mourd Mokni, Samir Boubaker, Amel Ben Osman

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QUIZ SECTION

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Inés Zaraa[1], Anis Dammak[1], Hela Tounsi[2], Meriem Amouri[1], Mourad Mouaffek[1], Mourd Mokni[1], Samir Boubaker[2] and Amel Ben Osman[1]

[1]Department of Dermatology, La Rabta Hospital, Jabbari, Bab Saadoun, Tunis, 1007, and [2]Department of Pathology, Pasteur Institute, Tunis, Tunisia. E-mail: inesrania@myway.com

A white 30-year-old woman presented with a 4-year history of a nodular lesion of the face that appeared to be growing and changing colour. Surgical excision without histolopathoogical examination 3 years previously for the same lesion had resulted in a relapse 3 months later.

Physical examination showed a 1.3 cm erythematous, violaceous, multi-lobed tumour, with 2 pigmented satellite nodules on the right cheek (Fig. 1). Its surface was irregular with an infiltrated base extending to the subcutaneous tissue. The lesion was painless.

A surgical excision was made with a margin of 3 mm in the macroscopic healthy skin.

Pathological examination of the tumours revealed an asymmetrical lesion with dense proliferation of melanocytic cells at the dermal–epidermal junction, with sheets of cells extending deep into the dermis and focally involving the deep margin. The dermal nests lacked maturation with depth. Cellular atypia, with some cells displaying enlarged, hyperchromatic nuclei and prominent nucleoli, and rare deep mitotic figures, were detected. Immunohistochemistry was positive for S-100, HBM-45 and Melan A.

What is your diagnosis? See next page for answer.

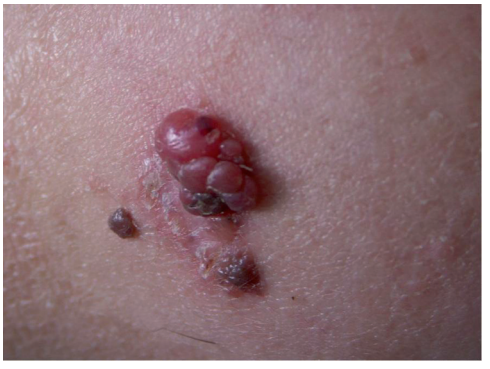

Fig. 1. An erythematous violaceous multi-lobed tumour, with two pigmented satellite nodules on the right cheek.

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Pigmented Lesion on the Cheek: Comment

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Diagnosis: **Spitzoid melanoma**

We consider this spitzoid lesion with atypical features to be spitzoid melanoma (SM), but we are aware that it is difficult to predict the biological behaviour with certainty from the histopathological appearance (Fig. 2).

The patient subsequently underwent a wide local re-excision, with 2-cm margins. Physical examination was free of peripheral adenopathy and metastatic localizations (chest radiography, abdominal and cervical echography). The patient is currently being followed closely and shows no evidence of disease approximately 2 years later.

No single criterion or set of criteria enables Spitz naevus (SN) to be distinguished confidently from SM in all cases (1). Criteria to discriminate SN from the major differential diagnosis of cutaneous malignant melanoma were first published in 1947 by Sophie Spitz (2). In most cases, the diagnosis of a typical SN can be achieved by histopathological examination. In a subset of cases, however, it is almost impossible to differentiate between the two.

Most authors (1–7) agree that the histological features that favour a diagnosis of melanoma include: moderate to marked dermal mitotic activity and/or the presence of atypical mitoses; prominent pagetoid (upward) epidermal spread of single (rather than nests of) tumour cells occurring across the entire lesion, including at its periphery (in the absence of evidence of trauma); lack of maturity at the base of the lesion; nuclear hyperchromatism and cellular pleomorphism, ulceration and necrosis. Crotty et al. (5) demonstrated that the presence of abnormal mitoses, a dermal mitotic rate of $>2/mm^2$, and mitotic figures within 0.25 mm of the deep border of the lesion favours a melanoma. Large nodules or confluent sheets of epithelioid melanocytes with nuclear and nucleolar pleomorphism and intraepidermal pagetoid spread are also more characteristic of malignant melanoma (1, 4).

New techniques have also demonstrated chromosomal, molecular and genetic differences between SN and melanomas (8–11). However, there are currently no immunohistochemical or other ancillary tests that are readily available and able to definitively distinguish SN from SM.

The term SM probably best describes a rare group of tumours often developing in young individuals who are only diagnosed with melanoma in retrospect; that is, after the development of metastases and an aggressive course (5). Fewer than 50 cases of SM in young people have been reported in the literature (1–7).

Our patient has SM of 2.75 mm Breslow depth without metastatic localization. Melanomas of similar thickness would have an estimated overall survival probability of 40–85% over 9 years.

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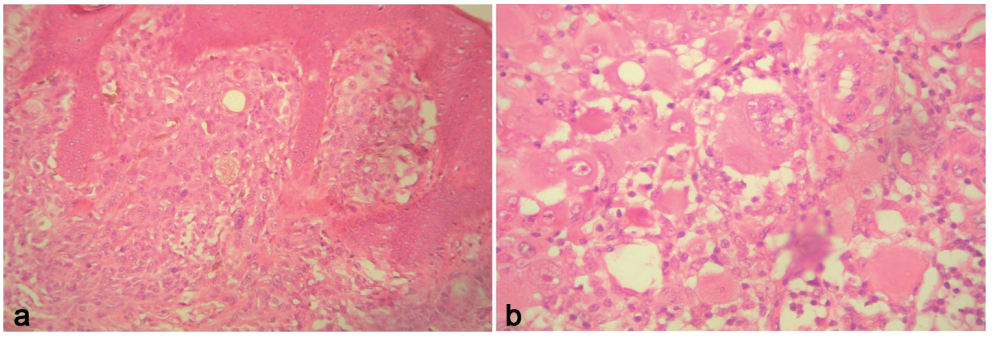

Fig. 2. (a) Dense proliferation of melanocytic cells at the dermal–epidermal junction. (b) Note atypical features of spindle-shaped melanocytes with mitoses. (Haematoxylin and eosin (a) ×10, (b) ×60).