

QUIZ SECTION

Pigmented Lesion on the Cheek: A Quiz

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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 histopathological 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*Acta Derm Venereol* 2009; 89: 445–447 (contd.)**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 resection, 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 $>2/\text{mm}^2$, 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.

REFERENCES

1. Barnhill RL, Argenyi ZB, From L, Glass LF, Maize JC, Mihm MC Jr, et al. Atypical Spitz nevi/tumor: lack of consensus for diagnosis, discrimination from melanoma, and prediction of outcome. *Hum Pathol* 1999; 30: 513–520.
2. Spitz S. Melanoma of childhood. *Am J Pathol* 1948; 24: 591–609.
3. Walsh N, Crotty K, Palmer A, McCarthy S. Spitz nevus versus spitzoid malignant melanoma: an evaluation of the current distinguishing histopathologic criteria. *Hum Pathol* 1998; 29: 1105–1112.
4. Barnhill RL. Spitzoid lesion rethinking Spitz tumors, atypical variants, “Spitzoid melanoma” and risk assessment. *Mod Pathol* 2006; 19: 21–33.
5. Crotty KA, Scolyer RA, Li L, Palmer AA, Wang L, McCarthy SW. Spitz naevus versus Spitzoid melanoma: when and how can they be distinguished? *Pathology* 2002; 34: 6–12.
6. Spatz A, Calonje E, Handfield-Jones S, Barnhill RL. Spitz tumors in children: a grading system for risk stratification. *Arch Dermatol* 1999; 135: 282–285.
7. Philip E, Le Boit. “Safe” Spitz and alternatives. *Pediatr Dermatol* 2002; 19: 163–165.
8. Paradela S, Fonseca E, Pita S, Kantrow SM, Goncharuk VN, Diwan H, Prieto VG. Spitzoid melanoma in children: clinicopathological study and application of immunohistochemistry as an adjunct diagnostic tool. *J Cutan Pathol* 2009; 36: 740–752.
9. Da Forno PD, Fletcher A, Pringle JH, Saldanha GS. Understanding spitzoid tumours: new insights from molecular pathology. *Br J Dermatol* 2008; 158: 4–14.
10. King MS, Porchia SJ, Hiatt KM. Differentiating spitzoid melanomas from Spitz nevi through CD99 expression. *J Cutan Pathol* 2007; 34: 576–580.
11. Takata M, Lin J, Takayanagi S, Suzuki T, Ansai S, Kimura T, et al. Genetic and epigenetic alterations in the differential diagnosis of malignant melanoma and spitzoid lesion. *Br J Dermatol* 2007; 156: 1287–1294.

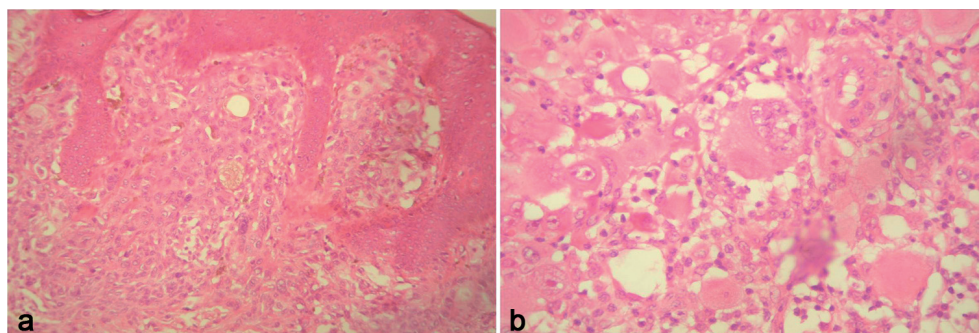


Fig. 2. (a) Dense proliferation of melanocytic cells at the dermal–epidermal junction. (b) Note atypical features of spindle-shaped melanocytes with mitoses. (Haematoxylin and eosin (a) $\times 10$, (b) $\times 60$).