

Appearances may be deceiving

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The patient

A 64-year-old white female presented with an asymptomatic brown-to-black nodular lesion located on her back in proximity (about 1.7 cm) to a surgical scar; indeed, the patient had developed a melanoma in situ on her back in 2010. She reported that the lesion had been present for two years (Figure 1). Family history of melanoma or other skin cancers were negative.

On dermatoscopy, the lesion showed an atypical starburst

pattern, characterized by a blue-white veil and blue globules in the center, and a peripheral polymorphous vascular pattern showing the presence of dotted, linear and irregular vessels (Figure 2). A milia-like cyst was also observed in the inferior part of the lesion. An excisional biopsy was performed with 2 mm margins. The diagnosis proposed to the pathologist was Spitz-Reed nevus or melanoma.

Histology revealed interconnected small nests of basaloid cells attached to the epidermis, embedded in a fibrous stroma. Focally, melanin pigment was seen in tumor nests (Figure 3).



Figure 1. Clinical aspect of the lesion. [Copyright: ©2016 Megna et al.]



Figure 2. Dermatoscopic examination of the lesion. [Copyright: ©2016 Megna et al.]

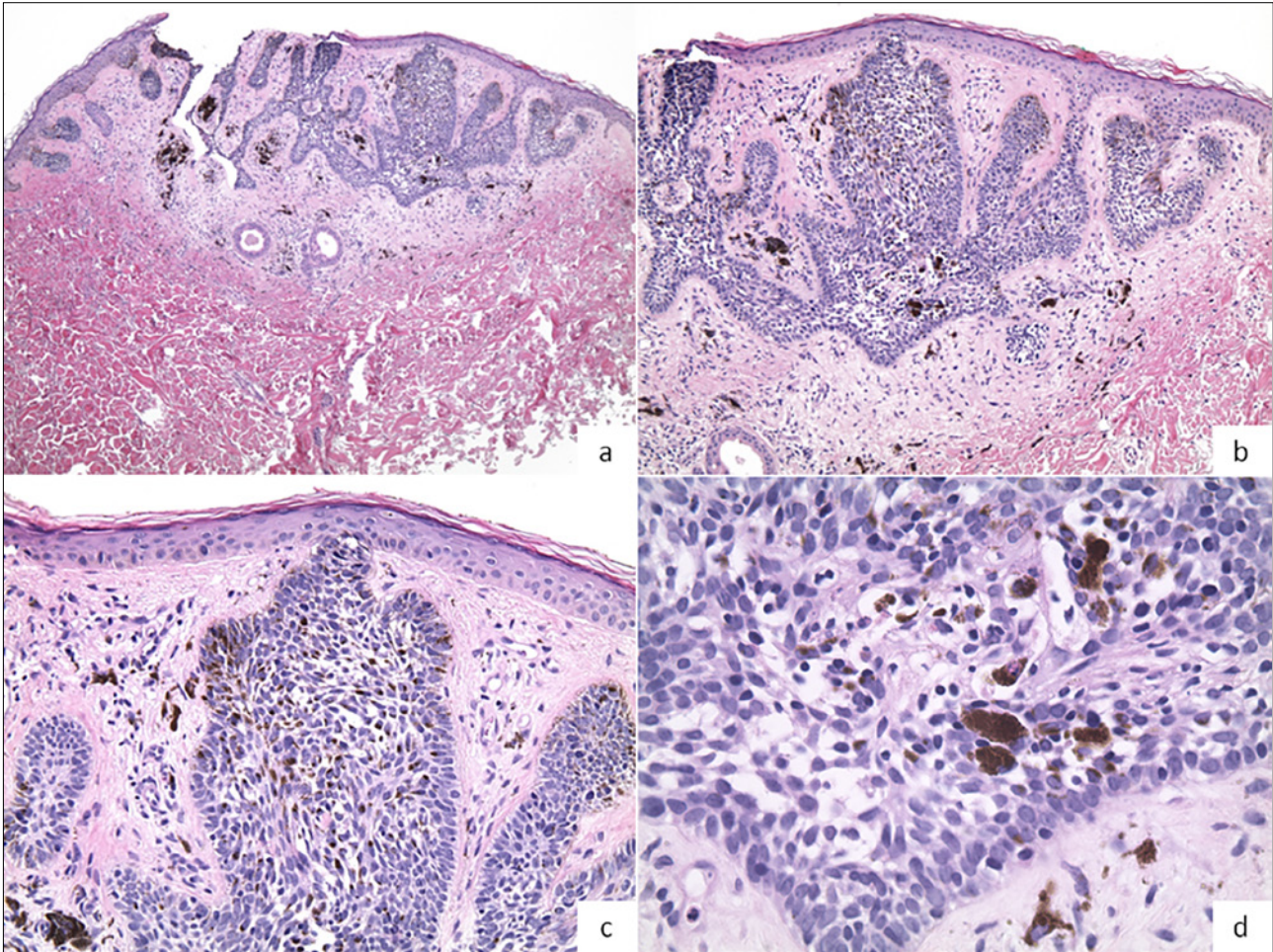


Figure 3. Histological examination: hematoxylin and eosin, original magnification, x5 (a), x10 (b), x20 (c), x40 (d). [Copyright: ©2016 Megna et al.]

What is your diagnosis?

Answer

Basal cell carcinoma

Discussion

Basal cell carcinoma (BCC) is the most common skin cancer [1]. Nevertheless, detailed information regarding its incidence and prevalence are scarce since cancer registries usually do not collect BCC data. A population-based study in Rochester, Minnesota, USA, estimated the annual standardized incidence in Caucasian subjects to be 146 cases per 100,000 persons [2]. Clinicopathologic appearances of BCCs are various and include nodular, superficial, morpheic, and pigmented variants, making BCCs common stimulants of different cutaneous lesions [3,4]. Particularly, pigmented BCCs can be a diagnostic challenge since they can demonstrate dermatoscopic features suggestive of melanocytic lesions, such as blue-white veil, brown to black dots and globules, pseudopods, radial streaming, as well as polymorphous vascular pattern [5]. Some of these features also character-

ized our case where the potential appearance of a pigmented network did not allow us to follow the dermatoscopic model for the diagnosis of the pigmented variant of BCC [6]. Hence, considering patient's medical history and both clinical and dermatoscopic features of the lesion, a diagnosis of melanoma or Spitz-Reed nevus was performed. A complete excision of the lesion was performed. Histological examination showed a proliferation of abnormal trichoblasts in continuity with the surface and infundibular epidermis with cleft-like spaces (stromal retraction) within a widened papillary dermis that are responsible for the dermatoscopic structures observed in the center of the lesion such as blue-white veil-like area and blue globules. Small nests of growing basaloid cells attached to the epidermis were seen in the periphery of the lesion that are responsible for the dermatoscopic structures of multiple maple leaf-like structures observed at lesions' margins and that had been erroneously interpreted as an atypical starburst pattern previously. Melanin pigmentation of the epithelium and in the histiocytes in the subjacent stroma was seen. The diagnosis was superficial pigmented basal cell carcinoma.

This diagnostic pitfall results from the fact that BCC may exhibit a large variety of clinical and dermatoscopic

characteristics as a result of the wide range of combinations of histopathological features [6]. Moreover, it should be taken also into account that among pigmented BCCs, the heavily pigmented variant represents the most difficult type to differentiate from both melanocytic nevi and melanomas, confirming that the global aspect should always be evaluated in the dermatoscopic interpretation of the lesions [5]. There are a few studies in the literature that describe BCCs simulating melanoma [7,8], although we did not find any reports depicting BCCs simulating atypical starburst pattern such as in Spitz-Reed nevus.

We report this case to highlight the fact that BCCs may simulate melanocytic lesions both clinically and dermatoscopically, particularly when underlying the unusual Spitz-Reed like presentation of our case.

References

1. Marzuka AG, Book SE. Basal cell carcinoma: pathogenesis, epidemiology, clinical features, diagnosis, histopathology, and management. *Yale J Biol Med* 2015; 88(2):16779. PMID: 26029015.
2. Chuang TY, Popescu A, Su WP, Chute CG. Basal cell carcinoma. A population-based incidence study in Rochester, Minnesota. *J Am Acad Dermatol* 1990; 22(3):413-7. PMID: 2312827
3. Roewert-Huber J, Lange-Asschenfeldt B, Stockfleth E, Kerl H. Epidemiology and etiology of basal cell carcinoma. *Br J Dermatol* 2007; 157:47-51. PMID: 18067632. DOI: 10.1111/j.1365-2133.2007.08273.x
4. Leiter U, Garbe C. Epidemiology of melanoma and non-melanoma skin cancer—the role of sunlight. *Adv Exp Med Biol* 2008; 624:89-103. PMID: 18348450. DOI: 10.1007/978-0-387-77574-6_8
5. Altamura D, Menzies SW, Argenziano G, et al. Dermatoscopy of basal cell carcinoma: morphologic variability of global and local features and accuracy of diagnosis. *J Am Acad Dermatol* 2010; 62(1):67-75. PMID: 19828209. DOI: 10.1016/j.jaad.2009.05.035
6. Menzies SW, Ingvar C, Crotty KA, McCarthy WH. Surface microscopy of pigmented basal cell carcinoma. *Arch Dermatol* 2000; 136:1012-6. PMID: 10926737. DOI: 10.1001/archderm.136.8.1012
7. Kaminska-Winciorek G, Wydmanski J. Benign simulators of melanoma on dermoscopy—black colour does not always indicate melanoma. *JPCCR* 2013; 1(7):612.
8. White EA, Rabinovitz HS, Greene RS, Oliviero M, Kopf A. Pigmented basal cell carcinoma simulating melanoma in a burn scar. *Cutis* 2003; 71(5):404-6. PMID: 12769409