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PHOTOLETTER TO THE EDITOR

Collision tumor of melanoma and atypical fibroxanthoma of the scalp

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Abstract

Several combinations of different skin tumors occuring one adjacent to the other or even in a single lesion have been described up to date. Collision tumors involving atypical fibroxanthoma and melanoma are extremely uncommon. Herein we present a case of melanoma associated with AFX and discuss on the usefulness of dermoscopy in the clinical diagnosis of collision tumors. (*J Dermatol Case Rep*. 2014; 8(3): 84-85)

Key words:

fibroxanthoma, collision tumor, dermoscopy, melanoma, skin cancer, trichoscopy

A 89-year-old man visited our department for evaluation of two nodules on the median parietal area of his scalp. Clinical examination revealed two contiguous tumors, namely a pigmented nodule and an adjacent non-pigmented, ulcerated, reddish nodule, each measuring 1x1 cm (Fig. 1a). The pigmented nodule appeared one year earlier and gradually enlarged, while the ulcerated lesion developed over a period of 3 months.

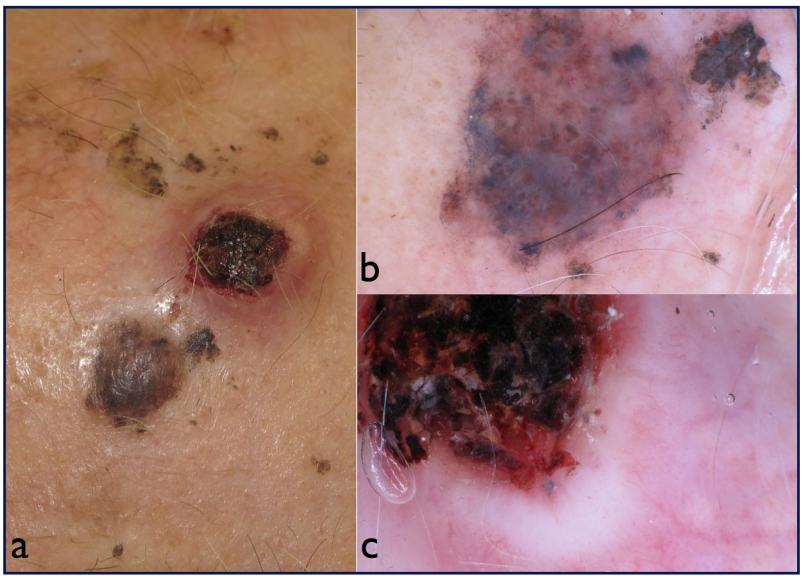

Figure 1
(a) Clinical aspect of a pigmented and an ulcerated nodule developing contiguously on the scalp. (b) Dermoscopy of the pigmented nodule revealed irregular blotches, irregular globules, a blue-white veil and remnants of pigment network at the periphery, overall suggestive of melanoma. (c) A large ulceration, whitish-pinkish areas and a polymorphous vascular pattern dermoscopically characterized the non-pigmented nodule.

No palpable lymph nodes were detected in the preauricular or cervical region, while total body skin examination did not reveal any other suspicious lesion.

Dermoscopy of the pigmented nodule revealed irregular blotches, irregular globules, a blue-white veil and remnants of pigment network at the periphery, overall suggestive of melanoma (Fig. 1b). Dermoscopy of the non-pigmented nodule revealed a large ulceration, whitish-pinkish areas and a polymorphous vascular pattern comprising dotted, hairpin, linear irregular and highly tortuous vessels (Fig. 1c). The dermoscopic combination of pinkish color with a polymorphous vascular pattern has been associated to several skin neoplasms, including amelanotic melanoma, malignant vascular tumors and other, less common, entities.[1]

Based on the clinical and dermoscopic morphology, a surgical excision was performed in both nodules. Histopathologic examination of the pigmented nodule reported a melanoma measuring 1.1 mm of thickness, without mitotic activity and ulceration. The non-pigmented nodule was microscopically evaluated as a pleomorphic tumor, composed of spindle cells with marked atypia taking sometimes storiform arrangement. Numerous mitotic figures were detected. On immunohistochemical examination, the tumor cells were negative for MART-1, S-100 protein and pankeratin, whereas they were found positive for CD68. Based on these findings, the tumor was diagnosed as an atypical fibroxanthoma (AFX).

A wide surgical excision of both tumors was performed, along with a locoregional nodal ultrasound investigation and the patient was scheduled for 3-month follow-up.

Several combinations of different skin tumors occuring one adjacent to the other or even in a single lesion have been described up to date. While in the majority of the cases the development of different contiguous tumors is regarded fortuitous, some authors have suggested that they might be a result of similar cell lineage origin of the involved tumors.[2]

The association of AFX and melanoma is extremely uncommon with only 2 previously reported cases, the first involving an amelanotic melanoma and the second a lentigo maligna melanoma (LM).[3,4] Collision tumors involving AFX in association with basal cell carcinoma (BCC), squamous cell carcinoma (SCC) and Merkel cell carcinoma have also been reported.[2,5] Although AFX is locally aggressive, it is associated to a low metastatic potential. Consequently, it has been suggested that the prognosis of collision tumors involving AFX depends on the non-AFX component.[4]

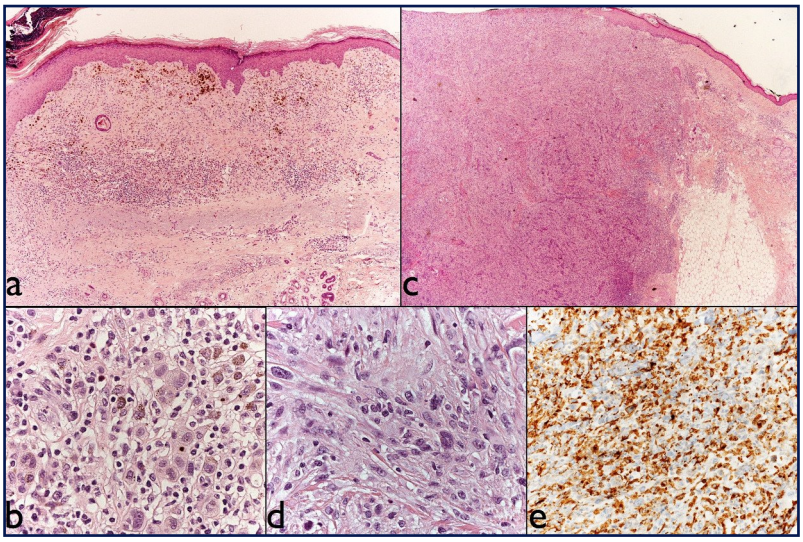

Figure 2

(a) Melanoma. Histopathologic examination reveals a dermal-based proliferation of atypical pigmented melanocytes on a background of severely damaged skin. The inflammatory infiltrate and the superficial erosion in the left upper corner are the residual sign of the previous punch biopsy. (b) Melanoma cells at higher magnification. (c) Atypical fibroxanthoma. On histology, the dermis is diffusely infiltrated by a richly cellular neoplasm. (d) At higher magnification, it is composed of pleomorphic and mitotically active spindle cells. (e) The neoplastic cells are diffusely immunoreactive with CD68.

Dermoscopy is known to significantly improve the clinical diagnosis of skin neoplasms and might be particularly useful in the challenging context of collision tumors.[2] In our patient, the melanoma exhibited several disease-specific features, while dermoscopic examination of the AFX revealed criteria indicative of malignancy, enhancing the better characterization and appropriate management of the tumor.

In conclusion, in this report we present an uncommon association of melanoma with AFX and underline the usefulness of dermoscopy in the clinical diagnosis of collision tumors.

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