PAMJ Clinical Medicine
Pan African Medical Journals

Case report

Collision of a basal cell carcinoma and a naevus

Samia Mrabat[1,&], Hanane Baybay[1], Sara Elloudi[1], Zakia Douhi[1], Fatima Zahra Mernissi[1], Abdelhafid El Marfi[2], Abdelmajid El Mrini[2], Mouna Rimani[3]

[1]Departement of Dermatology, University Hospital Hassan II, Fes, Morocco, [2]Departement of Traumatology, University Hospital Hassan II, Fes, Morocco, [3]Hassan Center of Pathology, Rabat, Morocco

[&]Corresponding author: Samia Mrabat, Departement of Dermatology, University Hospital Hassan II, Fes, Morocco

Received: 12 Oct 2019 - Accepted: 19 Jan 2020 - Published: 03 Feb 2020

Domain: Dermatology

Keywords: Basal cell carcinoma, dermoscopy, melanocytic naevus

Abstract

The association of contiguous or collision tumours in the same biopsy sample is not rare and is often reported in the literature. The association of basal cell carcinoma (BCC) and naevus is very difficult to diagnose clinically. We report the case of a 63 years old man who presented with an asymmetric heterochromatic plaque of the shoulder. Pathology found a melanocytic naevus with a basal cell carcinoma.

Case report | Volume 2, Article 30, 03 Feb 2020 | 10.11604/pamj-cm.2020.2.30.20635

Available online at: https://www.clinical-medicine.panafrican-med-journal.com/content/article/2/30/full

Introduction

Cutaneous neoplasms with two or more distinct cell populations are well documented entities that frequently represents a diagnostic challenge to both clinicians and pathologists. Multiple presentations regarding the co-existence of basal cell carcinoma with melanoma or melanocytic nevi have been reported [1]. Cutaneous collision tumours are extremely difficult to diagnose preoperatively, even with the help of dermoscopy, in particular when one of the lesions is melanocytic [2]. In the presence of nonmelanocytic collision lesions, such as seborrheic keratosis and BCC, the diagnosis is easier due to the presence of dermoscopic criteria that are evocative of either lesion [3].

Patient and observation

A 63-year-old patient with a history of chronic sun exposure and cutaneous bowen´s disease. Presented an asymptomatic skin lesion on his right shoulder that has been growing for the past three years. The dermatological examination showed an asymmetric heterochromatic plaque of 1.5 cm in diameter with irregular contours suggesting a suspicious pigmented lesion according to the ABCD rule (Figure 1). Dermoscopic analysis revealed the presence in the most pigmented portion of brown dots and globules crossed in the lower region by a hair. It also showed a regression area in the center, and ovoid nests with telangiectatic vessels in the less pigmented area (Figure 2). Giving the patient´s history and the suspicious nature of lesion both clinically and dermoscopically, we performed a surgical excision. The histological study showed tumor proliferation of basaloid-like cells at the periphery, with localized retraction slots, these cells sit within a dermal melanocytic tumor proliferation surrounded by a connective stroma harboring melanocytic pigment (Figure 3). The diagnosis of a collision tumour-basal cell carcinoma and dermal naevus was then established. No recurrence was found after two years of follow up.

Discussion

Nomenclature of collision tumors is confusing. Satter et al simplified the terminology by classifying them as collision, combined, colonized, or biphenotypic tumors [4]. And so, the word collision tumor is defined as two distinct neoplasms that occur within close proximity of each other but maintain sharp distinct boundaries [4,5]. Combined tumors are neoplasms consisting of two phenotypically different, yet difficult to separate populations of malignant cells [4-6]. Biphenotypic tumors refer to very rare neoplasms that arise from a common stem cell precursor wich undergoes divergent differentiation. The tumor cell populations that arise exhibit overlapping immunohistochemical and molecular properties [7]. When melanoma in situ permeates an adjacent or underlying basocellular carcinoma tumor, it is called colonization. In these cases, atypical melanocytes from are found interspersed among basaloid epithelial cell aggregates [8]. Our patient's histological examination found two adjacent cell populations but with clear and sharp boundaries hence the diagnosis of a collision tumour.

Conclusion

In our case, dermoscopy revealed two different patterns in the lesions: brown dots and globules crossed by a hair suggestive of a melanocytic naevus as well as ovoid nests with telangiectatic vessels wich are a common finding in pigmented basal cell carcinoma. Looking backward, we should have thought of the diagnosis of a collision tumour giving the presence of two distinct lesions.

Competing interests

The authors declare no competing interests.

Authors' contributions

All the authors have read and agreed to the final manuscript.

Figures

Figure 1: asymmetric heterochromatic plaque of the shoulder

Figure 2: dermoscopy showing pigmented globules and dots at the left and ovoid nests with telangiectatic vessels at the right

Figure 3: basal cell carcinomatous proliferation in the upper left + dermal nevocellular proliferation

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Figure 1: asymmetric heterochromatic plaque of the shoulder

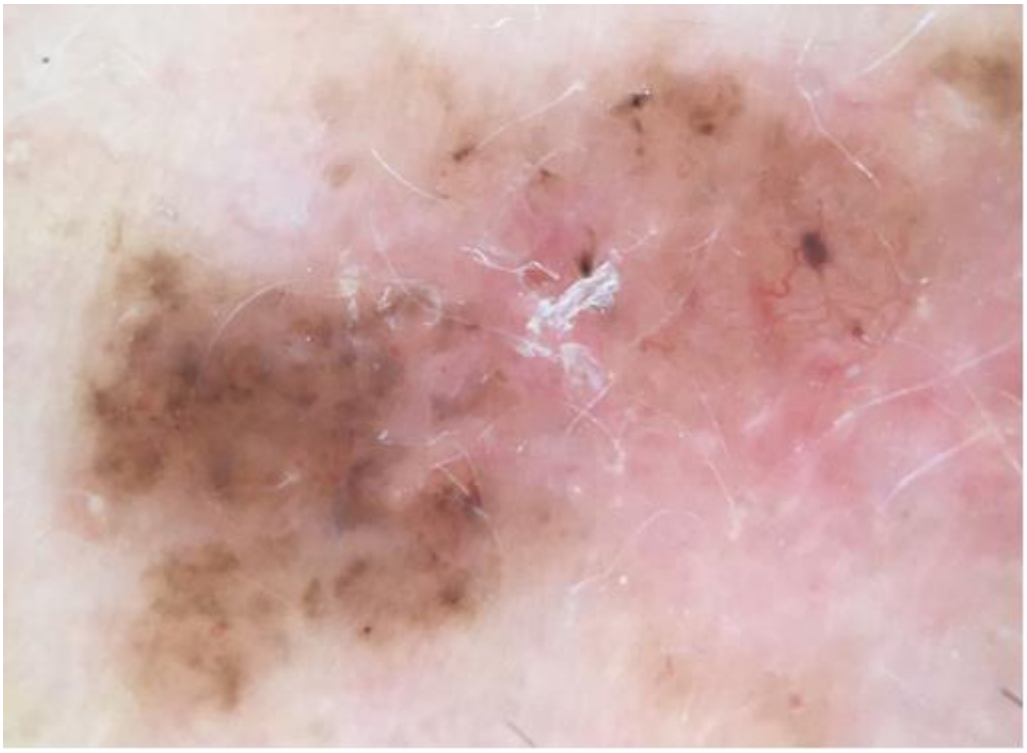

Figure 2: dermoscopy showing pigmented globules and dots at the left and ovoid nests with telangiectatic vessels at the right

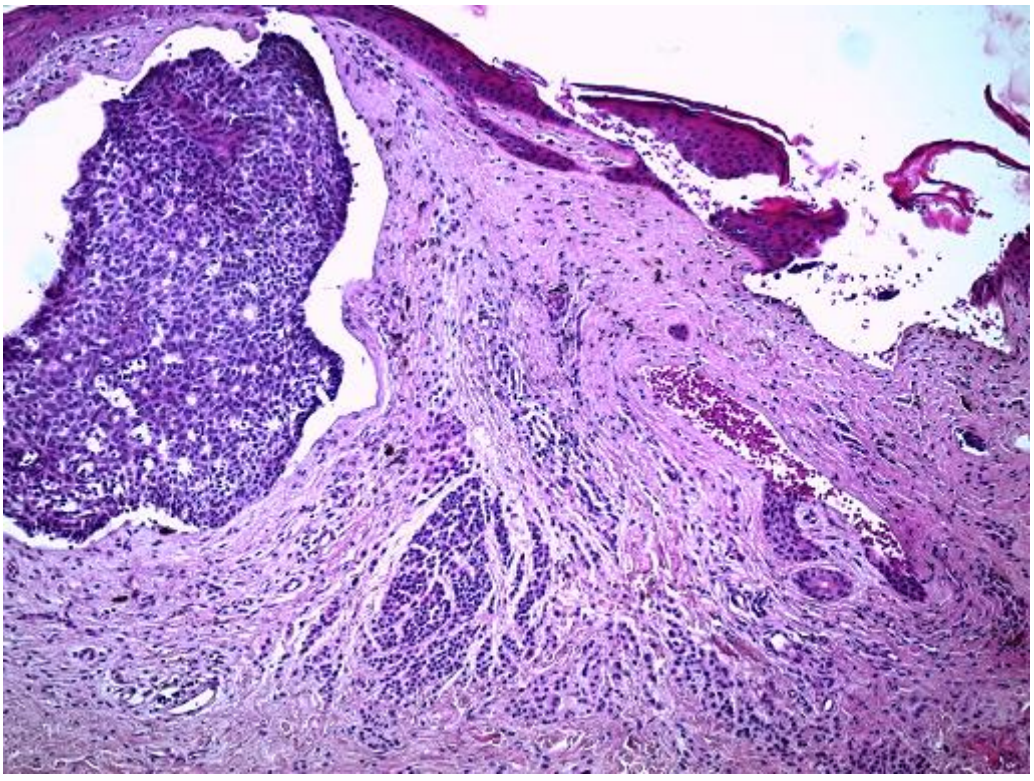

Figure 3 : basal cell carcinomatous proliferation in the upper left + dermal nevocellular proliferation