



Basal cell carcinoma over the breast with unusual presentation: A case report

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General Note



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ABSTRACT

The most common skin malignancy is basal cell carcinoma. Sun exposed areas are most commonly affected sites in the body because sun exposure is the main risk factor. Rarely, the nipple areola complex can be affected. There are several dermoscopic features in basal cell carcinoma, such as arborizing vessels and spoke-wheel areas. However, a yellow lobulated structure is a dermoscopic feature that is unusual to be seen in basal cell carcinoma. Here, we report a case of basal cell carcinoma over the nipple areola complex that showed this rare dermoscopic feature.

Keywords: Basal cell carcinoma, Nipple areola complex, Dermoscopy

1. INTRODUCTION

Sun exposure is considered the main risk factor for basal cell carcinoma (BCC); therefore, sun-exposed areas are the most commonly affected sites, with the face being the most common site. However, sun-protected areas can still be affected. BCCs very rarely occur in the nipple areola complex (NAC). To date, only 55 cases of BCC in the NAC have been reported in the literature (Hun & Cohen, 2016). Here, we report a case of BCC with unusual dermoscopic features in the NAC of a 55-year-old female.

2. CASE REPORT

A 55-year-old woman presented to our center with a right breast lesion that had been growing slowly during the last 10 years, with recent bleeding and discharge from the lesion. Her mammogram was normal (BI-RAD 1). Her past medical history was significant for migraine, and seizure disorder. Her past surgical history was significant for right breast cancer surgery 10 before, but no chemotherapy or radiation was required.

Upon examination, there was an 18mm × 22 mm solitary, erythematous to yellowish plaque with an irregular surface and scarring with telangiectasia located at the 11 o'clock position of the right breast (Fig 1). No other masses or lesions were detected on either the breast or the axillae.

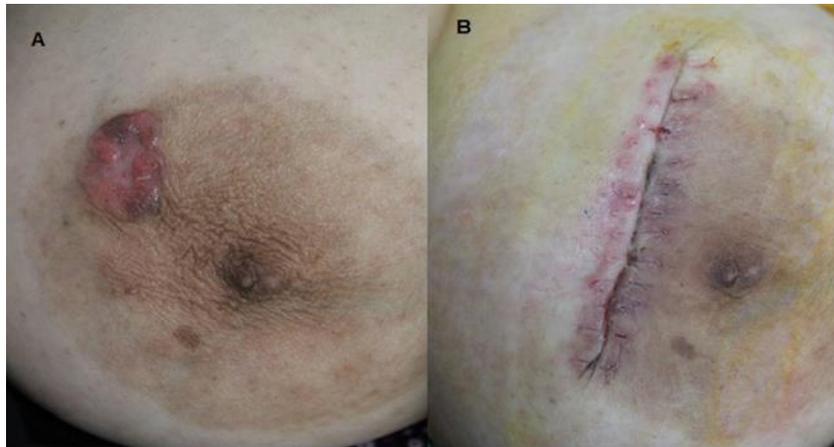


Figure 1 Pre- and post-excision of the basal cell carcinoma over the right breast

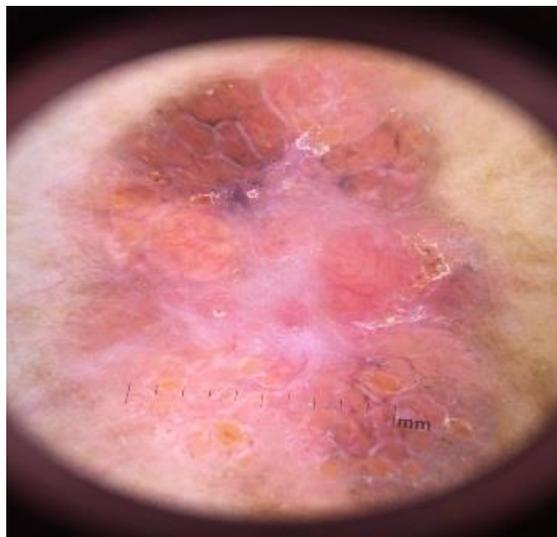


Figure 2 Yellow lobulated structures with scales and polymorphous vessels

Dermoscopic examination revealed yellow lobulated structures that were surrounded occasionally by a rim of white lines, overlying scales and polymorphous vessels, including arborizing, linear irregular, and hairpin vessels (Fig 2). An initial 4-mm punch biopsy showed nodular BCC. Elliptical excision was then performed with a 4-mm margin without complications.

Histopathological examination showed nodular neoplastic growth arising from the epidermis and extending to the upper dermis, which was composed of basaloid cells with scant cytoplasm, elongated hyperchromatic nuclei, peripheral palisading, peritumoral clefting, mitosis and apoptosis (Fig 3). Scattered melanophages were noted within the upper dermis. Focal surface ulceration was also seen. All the margins were negative for malignancy (Fig 3).

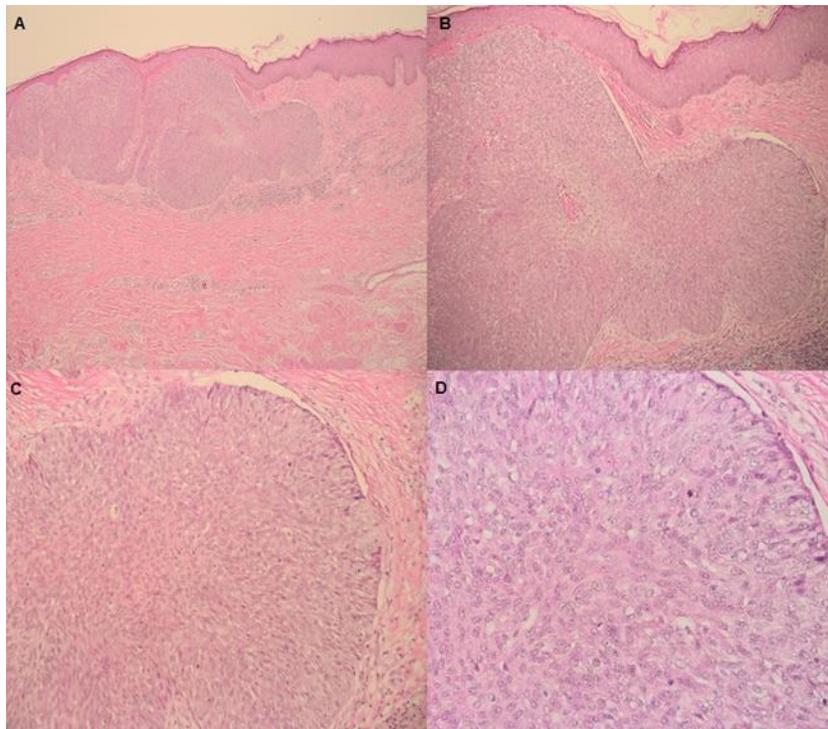


Figure 3 Skin with nodular proliferation of basaloid cells (A 10x, B 20x) with peripheral palisading and retraction artifact (C 20x), showing frequent mitosis and apoptosis (D 40x). Hematoxylin-Eosin stain.

3. DISCUSSION

Although BCC is the most common skin malignancy, with a lifetime risk of 20 to 30 percent, only 55 cases of BCC over the NAC have been reported (Hun & Cohen, 2016; Lanoue & Goldenberg, 2016). Males are more often affected by BCC of the NAC than females, most likely due to greater ultraviolet light exposure on male chests. Other risk factors include radiation exposure, skin type, immunosuppression, arsenic exposure, and previous or family history of BCC (Hun & Cohen, 2016).

Clinical presentation of BCCs of the NAC varies by type. An ulcer with indurated edges is seen with the rodent ulcer type. The nodulocystic form presents as a pearly nodule with a smooth surface and telangiectasia. The superficial type often manifests as scaly irregular plaques. Finally, the morphoeic form, which is more aggressive, usually presents as a scar-like plaque (Wong et al., 2003). BCC's dermoscopic features are helpful when making a diagnosis. The classic features of BCC under the dermoscope include arborizing vessels, spoke-wheel areas, blue-grey globules, leaf-like areas, shiny white areas, ulceration, and large blue-gray ovoid nests (Hun & Cohen, 2016). Yellow lobulated structures are frequently seen in sebaceous hyperplasia, sebaceous adenoma, and naevus sebaceous, however Bellucci et al. found, in a retrospective analysis of 400 BCCs, that 17 cases (4.25%) had yellow lobular-like structures and concluded that these yellowish structures should not exclude BCC when other dermoscopic features of BCC are present (Bellucci et al., 2014). Our explanation to these unusual structures suggests that the yellow structures could represent neoplastic BCC nests over fatty breast tissue. A rim of white lines represents the fibrosis around the BCC nest. Lastly, Kitamura et al. reported a unique dermoscopic feature for BCC in the NAC, which is large black web (Kitamura et al., 2016).

The treatment options available for BCC include surgical removal, radiotherapy, cryotherapy, topical fluorouracil, topical imiquimod and photodynamic therapy. Most patients with BCC of the NAC had the lesion surgically removed. Of the 55 reported cases, 3 (5.45%) cases had metastasis; however, the rate of metastasis in BCC in general is 0.0028% (Hun & Cohen, 2016; Nguyen, 2004). Given the higher rate of metastasis of BCC in the NAC, surgical removal with safe margins is advised.

4. CONCLUSION

The NAC is a rare site for BCC, with a higher prevalence in males due to greater NAC sunlight exposure in males. In addition to the classical dermoscopic features of BCC, yellowish structures can be seen in up to 10% of the cases. Surgical excision is advised due to the relatively higher rate of metastasis.

Authors' Contributions

All the authors listed have participated equally in writing the manuscript, and reviewing the article.

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Conflict of Interest

The authors declare that they have no conflict of interest.

Informed consent

Written & Oral informed consent was obtained from all individual participants included in the study. Additional informed consent was obtained from all individual participants for whom identifying information is included in this manuscript.

Data and materials availability

All data associated with this study are present in the paper.

Peer-review

External peer-review was done through double-blind method.

REFERENCES AND NOTES

1. Bellucci C, Arginelli F, Bassoli S, Magnoni C, Seidenari S. Dermoscopic yellow structures in basal cell carcinoma. *Journal of the European Academy of Dermatology and Venereology*. 2014 May;28(5):651-4.
2. Hun KA, Cohen PR. Basal cell carcinoma of the nipple-areola complex: a comprehensive review of the world literature. *Dermatology and Therapy*. 2016 Sep 1;6(3):379-95.
3. Kitamura S, Hata H, Yamaguchi Y, Imafuku K, Yanagi T, Shimizu H. The Unique Dermoscopic Structure 'Large black web' in basal cell carcinoma on the areola. *Journal of the European Academy of Dermatology and Venereology*. 2016 Dec;30(12):e221-3
4. Lanoue J, Goldenberg G. Basal cell carcinoma: a comprehensive review of existing and emerging nonsurgical therapies. *The Journal of Clinical and Aesthetic Dermatology*. 2016 May;9(5):26.
5. Nguyen TH. Mechanisms of metastasis. *Clinics in Dermatology*. 2004 May 1;22(3):209-16.
6. Wong CS, Strange RC, Lear JT. Basal cell carcinoma. *BMJ*. 2003 Oct 2;327(7418):794-8.