

Polypoid Basal Cell Carcinoma on the Right Axillary Region of a Young Lady Four Weeks Gestation: A Case Report



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Abstract

Basal Cell Carcinoma (BCC) is the most common skin neoplasm of various types. It has various clinical forms, mainly known as nodular, superficial, and morphea. Other less prevalent forms include polypoid, pore-like, and Jacobi ulcers. Polypoid BCC is rarely observed in individuals and has remarkable clinical features, such as being pedunculated and connected to the skin by a stalk; the BCC incidence is more in women than men and correlates directly with age, as it is reported to be <15% in patients below 40 years, so it is not frequently observed among young adults. In this case, we report one type of BCC presented as a skin tag. A 21-year-old young lady, four weeks gestation, was referred with a skin tag on the right axillary region. Surgical excision was performed; a histopathologic examination of the skin lesion revealed a malignant epithelial neoplasm composed of some nests of basaloid cells and an accumulation of mucin. The IHC staining, such as Bcl2, CK20, CD34, and Ki67, facilitates better evaluations. The diffuse pattern of Bcl2 in basaloid cells, the rare staining of CD34 in stromal cells, the absence of CK20, and high positivity of Ki67 in tumor cells are favored in diagnosing BCC.

Keywords: Basal cell carcinoma; Polypoid; Axilla; Young adult

Introduction

Basal cell carcinoma (BCC) is the most common type of skin cancer (75% to 80%) with the highest frequency among all cancers [1], having an estimated overall lifetime risk of 1/5 [2]. BCC has various clinical forms, mainly known as nodular, superficial, and morphea; other less prevalent forms include polypoid, pore-like, and Jacobi ulcers [3]. Variable amounts of melanin may be present in these tumors, often known as pigmented BCCs. Most BCC cases (70-80%) occur in the head and neck regions and are mainly caused by excessive UV radiation. The other instances appear on the trunk and extremities (about 25%) and are rarely noticed on non-hair-bearing regions such as the genital mucosa [4]. The BCC incidence correlates directly with age, as it is reported to be <15% in patients below 40 years [5]. In this case, we present a 21-year-old patient with a polypoid (as a skin tag) lesion on the right axillary region, the biopsy result of which confirmed BCC's existence.

Case Report

A 21-year-old young lady four weeks gestation was referred to a family physician at the Department of gynecology and then Dermatology at Bou-Ali Hospital, Sari, Mazandaran, Iran, for a skin tag treatment. The skin tag just started developing on his right axillary region approximately one year ago. The patient was in good health status with no ongoing medical problems, and the laboratory tests showed no abnormalities in hematological parameters. There was no family history of skin cancer nor personal history to justify the existence of Basal Cell Carcinoma (BCC). Physical examinations showed one skin-colored soft papule, which was pedunculated and had a diameter of 0.7cm × 0.6cm × 0.3cm. Histopathologic examination of the skin lesion revealed a malignant epithelial neoplasm composed of some nests of basaloid cells with peripheral clefting and palisading surrounded by loose stroma with occasional myxoid changes and

accumulation of mucin. The tumor cells were characterized by vesicular to hyperchromatic nuclei and prominent nucleoli (Figure 1A-1C). Mitotic activity and marked atypia with the presence of scattered apoptotic cells were also observed. Regarding the clinical and histopathological findings, the patient was diagnosed with BCC.

The diagnosis of BCC, in this case, has some close differential diagnoses, such as basaloid follicular hamartoma and trichoepithelioma. The basaloid follicular hamartoma is characterized by strands of basaloid cells connected to the overlying epithelium. Bland cells with no atypia, mitoses, or

apoptotic body are helpful features different from BCC. The trichoepithelioma is a hair follicle-derived tumor composed of basaloid cells with a frond-like arrangement and the presence of epithelial tracts comprising two or more layers, which may have papillary mesenchymal bodies.

The IHC staining such as Bcl2, CK20, CD34, and Ki67 facilitates better evaluations. The diffuse pattern of Bcl2 in basaloid cells, the rare staining of CD34 in stromal cells, the absence of CK20, and high positivity of Ki67 in tumor cells are favored in diagnosing BCC (Figure 1D-1F).

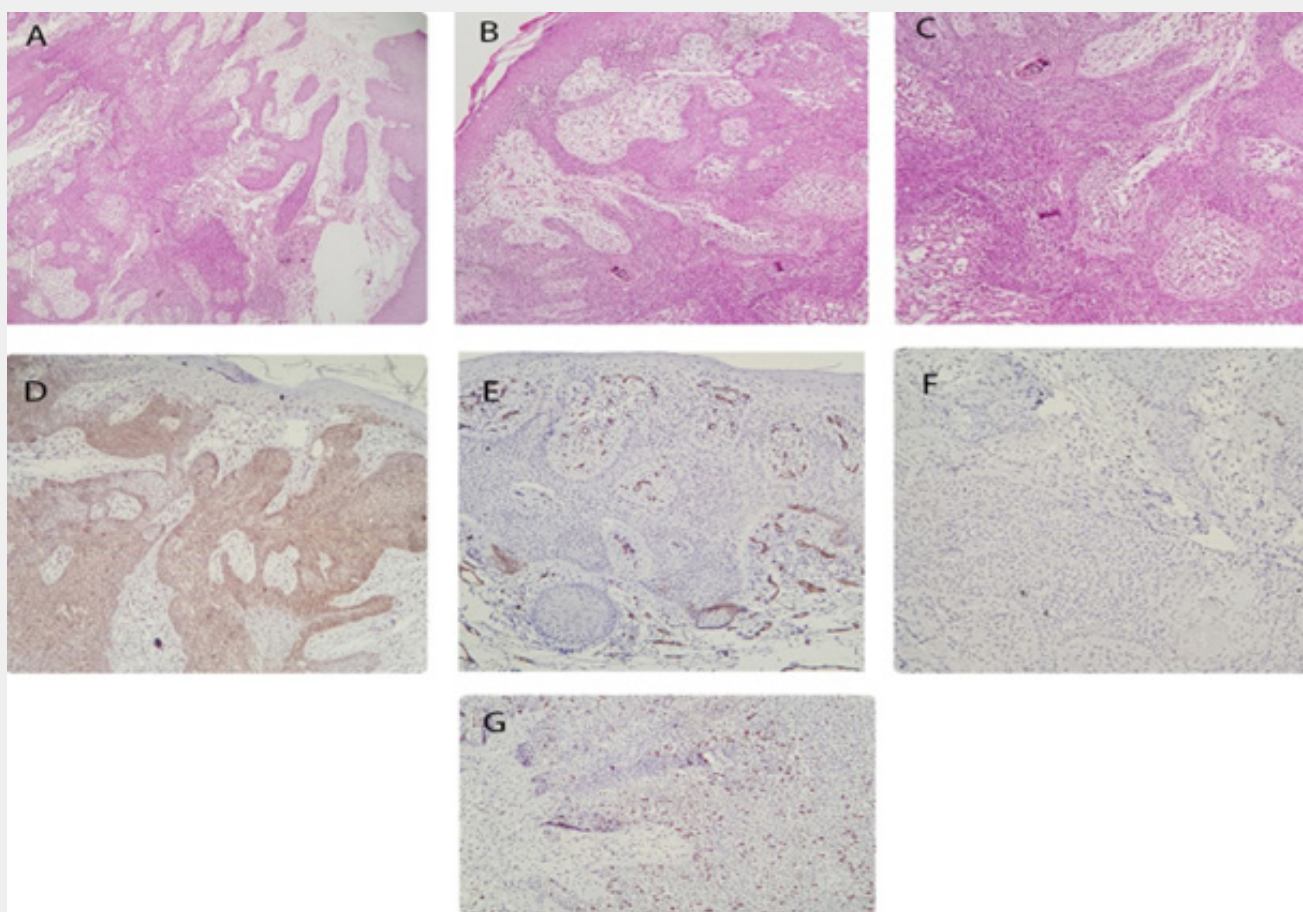


Figure 1: (A) Polypoid Basal Cell Carcinoma (Hematoxylin and eosin; original magnification 40x),(B) Peripheral clefting and palisading in polypoid Basal Cell Carcinoma (Hematoxylin and eosin; original magnification 100x),(C) Malignant epithelial neoplasm composed of some nests of basaloid cells (Hematoxylin and eosin; original magnification 400x);(D) Diffuse immunoreactivity of BCL2 in basaloid cells (Immunohistochemistry staining; 100x);(E) Few scattered reactivities of CD34 in stromal cells (and also in blood vessels) (Immunohistochemistry staining; 100x);(F) Non-reactivity of CK20 in tumor cells (Immunohistochemistry staining; 100x)(G) High expression of Ki67 in tumor cells (Immunohistochemistry staining; 100x).

Discussion

BCC is the most common skin neoplasm, which mainly occurs in Caucasians [6]. It has many clinical and histopathological manifestations classified as superficial, nodular, pigmented, ulcerating, cystic, adenoid, etc. [3]. Polypoid BCC is distinguished from the other types due to its specific shape [6]. In 2004, Misago et al. [7] reviewed several cases of polypoid BCC and made the following observations about polypoid BCC

- a) The prevalence of polypoid BCC is higher in women compared to men.
- b) Polypoid BCC mainly involves the trunk and limbs/forearm (52.4%).
- c) Polypoid BCCs usually have a large size; however, they are non-infiltrative, and no aggressive cases have been reported.

It is slow-growing cancer that invades locally and rarely metastasizes if left untreated [8]. According to the American Cancer Society (ACS), more than two million persons were treated for non-melanoma skin cancer (NMSC), mostly BCC, in 2006 [9]. UV exposure is the leading risk factor for BCC development. Other risk factors include light skin color, a history of blistering sunburns in childhood, tanning beds, etc. [10]. The differential diagnosis of polypoid BCC is an adnexal tumor, dermal nevus, angioma, and amelanotic melanoma. The tumor, in this case, is known as a polypoid BCC as it includes the aggregation of basaloid cells palisaded in the peripheral area. These cells are present under the epidermis and are separated from the proximal stroma by clefts. Moreover, a pedunculated exophytic appearance was observed.

Conclusion

The BCC incidence is more in women than men and correlates directly with age, as it is reported to be <15% in patients below 40 years, so it is not frequently observed among young adults also Polypoid BCC is rarely observed in individuals and Polypoid BCC mainly involves the trunk and limbs however our case was A 21-year-old young lady four weeks gestation was referred with a skin tag on the right axillary region which; histopathologic examination favored in diagnosing BCC. To the best of our knowledge, no similar case of polypoid BCC has been reported in Iran, as BCC in young adults is not prevalent.

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Ethical Consideration

Written informed consent was obtained from the patient for the publication of this case report as well as accompanying images.

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