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Case Report

Basal cell carcinoma in a non-sun exposed site: A rare case report

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ABSTRACT

Basal cell carcinoma (BCC) is the most common cutaneous malignancy and accounts for approximately 80% of all non-melanoma skin cancers. BCCs develop characteristically on sun-exposed areas, with around 85% of reported cases developing over the head or neck. This carcinoma can arise, in non-sun-exposed areas also, such as the axilla, nipple, and the genital and perianal areas. In India and in black population, basal cell carcinoma is a rare form of cutaneous malignancy. The majority of BCC are treated surgically, with peripheral margins of 2 to 5 mm for low-risk tumours and 5 to 15 mm for high-risk lesions.

1. Introduction

Basal cell carcinoma (BCC) is the most common cutaneous malignancy which make up around 80% of all non-melanoma skin cancers (NMSC).[1] BCCs develop characteristically on sun-exposed areas, with around 85% of reported cases developing over the head or neck. BCC can develop, in non-sun-exposed areas also, such as the axilla, nipple, and the genital and perianal areas.[2] BCC is an immunogenic neoplasm for which pathogenesis associates strongly with environmental factors, genetic factors and several other patient-dependent factors. Ultraviolet (UV) radiation (sun exposure) is accepted as one of the most important causal factors of BCCs. The p16 gene is supposed to be involved in the pathogenesis of cutaneous BCCs in view of increased p16 mRNA and also the expressed protein within tumour cells.[3,4] Other contributing factors include ethnic differences, skin type, chronic irritation, chronic inflammation, burns, skin lesions, immunologic differences, exposure to ionising radiation, exposure to chemical carcinogens, and also infection with human papilloma viruses.[4] Childhood and intense and intermittent sun exposure has a strong correlation to BCC development. People living with HIV (PLHIV) have an estimated incidence of BCC twice that of healthy individuals, and in organ transplant recipients, it is five- to ten-times higher.[5]

2. Case Report

38 years old woman presented with a lesion in the back of left thigh for the last 3 years. No history of past trauma, radiation exposure or damage, at the site of lesion. She first noticed a small raised lesion in the back of left thigh 3 years ago which was not symptomatic and did not trouble her and hence she did not consult a physician for the same. She has noted that the lesion has grown larger over the previous one to two years, and that dressing or rubbing against the lesion causes a minor amount of pain and discomfort. Cutaneous examination revealed a well demarcated, Pink-Purplish pigmented plaque measuring about 4cm and 3cm with rolled out edges (Figure 1). On palpation it was not

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tender and moved freely from underlying structures. Treated with wide excision with 1cm free margins and the specimen was sent for histopathological examination. The biopsy result showed a Basal cell carcinoma, superficial variant with pigmentation with all peripheral margins (Superior, Lateral, Inferior, Medial, and Basal) being microscopically free from tumour. Tumour was 5mm away from the nearest superior margin.

Fig. 1: Well defined, hyper pigmented (purplish-brown) plaque measuring about 4cm and 3cm in horizontal dimensions with rolled out edges

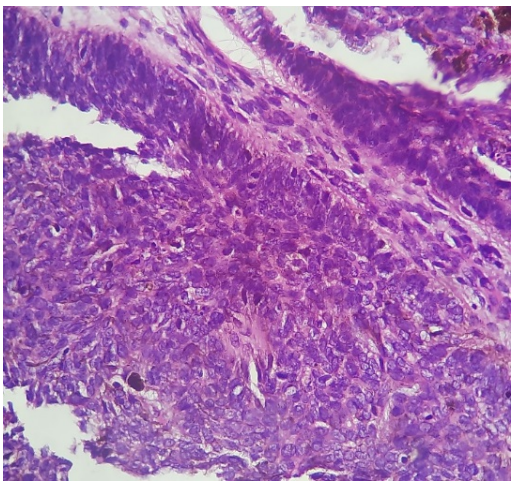

Fig. 2: Stratified squamous epithelium with one edge showing lobules of Basaloid cells

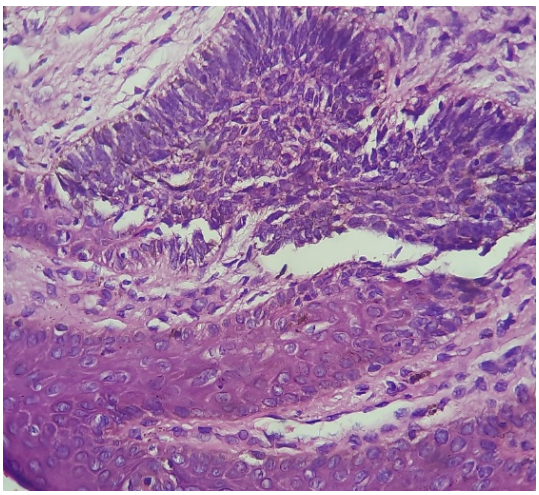

Fig. 3: Row of peripheral palisading and clefting between the tumor and stroma

3. Discussion

Basal cell carcinoma is a rarely occuring cutaneous malignancy in India and in black population. Its incidence in dark skinned population has been estimated to be between one and two percent. Australia has the highest reported rate of basal cell carcinoma worldwide.[6] It has multiple clinical variants like nodular, ulcerative, superficial, morpheiform, pigmented type and fibroepithelioma of Pinkus.[7] There are several histological subtypes of basal cell carcinoma, Low-risk subtypes of BCC include nodular, superficial, fibroepithelial, pigmented, and infundibulocytotic, whereas higher-risk subtypes include infiltrative, micronodular, morpheaform, and basosquamous BCC with sarcomatoid differentiation.[8] The majority of BCCs are treated with surgery. Depending on the features of the tumour (size, location, history of recurrences, histology, and the surgeon's skill level), standard excision or micrographic surgery (Mohs) may be done. The margins calculated for SE depend on the risk profile for BCC recurrence. According to current recommendations, peripheral margins should be between 2 and 5 mm for low-risk tumours and between 5 and 15 mm for high-risk lesions.[9] Other treatment modalities include Electrodesiccation and curettage in which the tumor surface is removed with a blade or scraping device, Cryosurgery, Topical 5% Imiquimod, Topical 5-Fluorouracil, Photodynamic therapy, Radiation therapy, intralesional injection of interferon (IFN), FU, or bleomycin and Oral SMO inhibitors like Vismodegib and sonidegib.[10]

4. Conclusion

The case report of this instance of BCC, superficial type, that showed up in an unusual location (the back of the thigh) in a patient with Indian ancestry emphasises the need for dermatologists to remember that basal cell carcinoma

can be diagnosed in such lesions that appear in any patient population, even in atypical areas and in non-sun-exposed areas of skin.

5. Conflict of Interest

There are no conflicts of interest in this article.

6. Source of Funding

None.

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