

Case Report

Basal cell carcinoma involving the skin of breast – a rare site

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Abstract Basal cell carcinoma (BCC) is the most common and least lethal form of all cancers. The estimated lifetime risk of BCC in the white population is 33-39% in men and 23-28% in women. It occurs most frequently in people over 50 years of age and almost twice as often in men as in women. Up to 85 % of BCCs are found in the head and neck region, but the lesions occasionally occur in unusual and routinely photoprotected locations. These include breast, vulva, scrotum, earlobe and middle ear. With such an atypical presentation of BCC, a keen and skeptical eye for diagnosis is required. No population-based epidemiologic studies to assess the incidence of BCC have been done in Pakistan. However, some scattered data can be found in local medical literature, which shows the highest frequency in 51-60 years age group with a male preponderance. We report a case of non-healing ulcerated lesion over breast that was being treated for 5 years unsuccessfully. On skin biopsy, it came out to be BCC. As far as we have searched, it is the first report of such a case in Pakistani literature.

Key words

Basal cell carcinoma, breast, unusual presentation.

Introduction

Basal cell carcinoma (BCC) is the most common and least lethal form of all cancers. In the western world, the annual incidence is 900,000 people (550,000 male, 350,000 female). Age-adjusted incidence per 100,000 white individuals is 475 in men and 250 in women. The estimated lifetime risk of BCC in white population is 33-39 % in men and 23-28 % in women.¹ Overall, BCC along with squamous cell carcinoma account for about 40 percent of all cancers in the western world.¹ It occurs most frequently in people over 50 years of age, and almost twice as often in men as in women.² It occurs less often in Asians and rarely among African-Americans. Up to 85 % of BCCs are

found in the head and neck region,³ but the lesions occasionally occur in unusual and routinely photoprotected location.⁴

No population-based epidemiologic studies to assess the incidence of BCC have been conducted in our country. However, some scattered data can be found in Pakistani medical literature, which shows the highest frequency in 51-60 years age group with a male preponderance.⁵ Nose is the most frequent site,⁶ and periocular involvement is the next commonest.⁷ Mean interval between development of lesion and reporting for treatment is 5 years.⁷ Death due to BCC is extremely rare.

Apart from the head and neck region, several atypical locations have been described for BCC, breast being one of them. Of the different regions of the breast,

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nipple is the least common of all.⁷ However, no descriptive data regarding atypical sites of BCC have been found in Pakistani literature. We report a case of non-healing ulcerated lesion of breast that was being unsuccessfully treated for 5 years. On skin biopsy, it turned out to be BCC.

Case report

Our patient, a 65-year-old lady, resident of Malir, Karachi, presented with a slowly enlarging non healing ulcer of the right breast for the last 5 years. She had consulted various doctors and had been advised surgery, but she had refused any surgical intervention. No biopsy had ever been done on the lesion. When we examined the lady, she had a non-tender and painless ulcer, 6 cm x 8 cm in size, on the upper outer quadrant of the right breast. There was granulation tissue present on the floor of ulcer. The upper border of the ulcer had a very characteristic rolled, hyperpigmented edge (**Figure 1**). There was some scarring around the edges also. The nipple and areola were spared. The ulcer was not adherent to the underlying structures and no mass could be palpated on breast examination. The regional axillary lymph nodes were not palpable. A biopsy was taken from the characteristic upper rolled margin and sent for histopathology. Pus swabs were taken for bacterial culture and sensitivity, her hematological profile including complete blood count, liver function tests, renal function tests, urinalysis, and chest X ray were also advised. Skin biopsy for histopathology revealed the characteristic pallasading appearance of basal cell carcinoma. Rest of the investigations were within normal limits. No metastasis or



Figure 1 Ulcerated lesion showing characteristic hyperpigmented margin with rolled edge.

underlying breast pathology could be found. Due to the benign nature of the tumor, a simple surgical excision was planned. The whole ulcer was resected and submitted for histopathological examination. The examination revealed that the specimen had been resected with clear margins. Primary closure of the wound was done and it healed nicely in about 2 weeks without any complications. Recovery was smooth and the patient is well and healthy since. She is under regular follow-up.

Discussion

The risk of skin cancer is related to the amount of sun exposure and pigmentation in the skin. BCC is believed by many to arise from pluripotential cells within the basal layer of the epidermis of follicular structures. These cells form continuously during life and are capable of forming hair, sebaceous glands and apocrine glands. Tumors usually arise from the epidermis and occasionally arise from the outer root sheath of a hair follicle, specifically from hair follicle stem cells residing just below the sebaceous gland duct in an area called the bulge. The incidence of BCC varies with the skin color of the population. It is most common in whites and least in blacks. We

lie somewhere in between. With most of our population falling in the Fitzpatrick skin type 3 to 5, we see a significant number of these tumors in our setup.⁸

Apart from the 85 % of BCC occurring in the head and neck region, several atypical and unusual sites have been described in the literature. In addition to breast and nipple, these include earlobe, groin, middle ear, scrotum, and vulva.⁹ Although BCC is a carcinoma with a benign behavior, it has been reported to metastasize.¹⁰ Usually it occurs *de novo* on sun exposed normal skin but it can develop on some underlying benign disorders of skin e.g. nevus sebaceous.¹¹ Treatment of BCC poses little challenge as different destructive methods are effective including curettage, electrocautry, cryotherapy, electrodesiccation, surgical excision and rarely chemotherapy and radiotherapy. But the treatment of choice will be dictated by the site and size of the lesion.

BCC can develop at the most unusual sites including breast. The kind of presentation that our patient had can be very alarming for the patient as well as for the treating doctor. Mistaken for carcinoma breast, it could also lead to some very unnecessary and mutilating surgery, with a lot of psychological trauma and economic burden for the patient. In our patient, the lesion did present the tell tale rolled border with hyperpigmentation but was not noticed. The diagnosis of skin cancer including BCC is not difficult, only if a degree of suspicion is always kept in mind while dealing with atypical lesions. A multidisciplinary approach should be adopted.

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