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Case report

Basal Cell Carcinoma Occurring Two Decades Following a Mastectomy: A Case Report

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Abstract
This case report underscores the critical need for ongoing skin monitoring in individuals with a cancer history and weakened immune systems. Basal cell carcinoma (BCC) represents the most prevalent form of skin cancer, often manifesting in regions exposed to sunlight. If not addressed, it can lead to considerable local tissue destruction. We describe the case of a patient who, two decades after undergoing a mastectomy for breast cancer, developed BCC in the chest wall region.
Keywords. Basal Cell, Carcinoma, Mastectomy, Radiotherapy.

Introduction

Breast cancer is one of the most common cancers impacting women worldwide [1]. Its management utilizes a multidisciplinary clinical approach for diagnosis and treatment, integrating the expertise of radiology, surgical procedures, and medical oncology [2]. Conversely, basal cell carcinoma, although infrequently aggressive, poses difficulties when it occurs in regions that have been previously treated or scarred. This case report presents a rare presentation of basal cell carcinoma and its management.

Case report

A 59-year-old female patient, with a medical background that includes diabetes, hypertension, and bronchial asthma, has a prior history of undergoing a modified radical mastectomy for the treatment of invasive ductal carcinoma in the right breast. This was followed by a hysterectomy. She subsequently received adjuvant chemotherapy and radiotherapy for her luminal B, HER2-negative breast cancer, and there is no reported family history of cancer.

After a span of twenty years, she reported a skin lesion on her chest at the site of her previous surgery, which had been slowly enlarging over three years. The lesion was asymptomatic and had been overlooked by the patient until it began to increase in size and exhibited easy bleeding, prompting her to seek medical attention. Upon examination, the ulcer measured 2 cm by 2 cm, displaying a pink to reddish hue with irregular indurate margins and was prone to bleeding (fig.1).

A punch biopsy was performed, confirming the diagnosis of nodular basal cell carcinoma. She subsequently underwent a wide local excision surgery with safe margins and achieved complete resolution.

Figure 1: The ulcer measured 2 cm by 2 cm, displaying a pink to reddish hue with irregular indurate margins.

Discussion

Basal cell carcinoma (BCC) represents the most prevalent form of skin cancer. The primary environmental risk factor linked to the onset of BCC is exposure to ultraviolet radiation. Numerous morphological subtypes have been identified, such as nodular (solid), micronodular, superficial, cystic,

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infiltrating, pigmented, adenoid, sclerosing, metatypical, basosquamous, and fibroepitheliomatous. Additionally, it is not uncommon to observe mixed patterns among these aforementioned types [3,4]. The differential diagnosis of basal cell carcinoma (BCC) encompasses conditions of the sweat gland or sebaceous, as well as squamous cell carcinoma (SCC) [5].

The therapeutic options encompass Mohs micrographic surgery (MMS), conventional surgical excision, curettage, radiation therapy, cryosurgery, topical treatments, and systemic agents. However, the management of basal cell carcinoma (BCC) predominantly involves surgical intervention [6]. The emergence of basal cell carcinoma (BCC) following a mastectomy presents significant challenges, as the presence of surgical scars can obscure the differentiation between new lesions and normal post-operative alterations or a potential recurrence of breast cancer. Timely detection is essential to reduce the likelihood of local tissue invasion or recurrence. Additionally, the patient's prior exposure to radiation therapy as part of her breast cancer treatment may have played a role in the onset of the BCC [7].

There are two mechanisms to consider. The initial evidence suggests that radiation exposure can lead to diffuse deletions and balanced inversions, which may subsequently result in a range of secondary malignancies following radiation treatment. An alternative explanation posits that basal cell carcinoma (BCC) may thrive in an environment characterized by prolonged inflammation and tissue damage. Numerous case studies have examined the occurrence of basal cell carcinoma (BCC) in scar tissue [8,9]. In our case report, the patient underwent surgical intervention for breast cancer two decades ago and subsequently received chemotherapy and radiotherapy. Following this treatment, a basal cell carcinoma emerged. The management approach involved the surgical excision of the lesion, ensuring a safe margin. The diagnosis was confirmed through histopathological analysis.

Conclusion

This case underscores the critical role of regular skin examinations for individuals who have survived breast cancer, especially for those who have received a mastectomy and radiation therapy. Early identification and effective management of basal cell carcinoma (BCC) are vital in averting local tissue damage and preserving overall quality of life.

Consent

Written informed consent for the case to be published(including images, case history and data) was obtained from the patient for publication of this case report.

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