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Case Report

Coexisting Carcinoma of Breast and Basal Cell Carcinoma of Skin: A Case Report

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ABSTRACT

An elderly female presented with the complaint of a right sided breast lump since six months, found to be Invasive Ductal Carcinoma (IDC) of the Right Breast. Examination also revealed another lesion of suspected Basal Cell Carcinoma (BCC) in the same region, which was later confirmed by histopathological examination. Both these lesions were excised during the same procedure of Modified Radical Mastectomy. Review of literature of this rare coexistence showed no such documentations from India. Genetic basis for the same was reviewed, but could not be evaluated in our patient.

Keywords: Coexisting malignancies, Carcinoma breast, Basal cell carcinoma

INTRODUCTION

Carcinoma of breast is one of the most common malignancies in females. Its causes have not yet been completely understood, though genetic changes (like HER2/NEU over expression), hormonal influence (like unopposed estrogen excess), and environmental variables have been implicated. Categorised as invasive and non-invasive, Carcinoma of Breast has various histological variations. Invasive Ductal Carcinoma (IDC) is used to suggest all carcinomas that cannot be placed into other subtypes, and constitutes a major portion of Carcinoma Breast. It is usually associated with Ductal Carcinoma In-Situ (DCIS). Lymphovascular invasion may or may not be seen, and nearly 1/3rd over express HER2/NEU.[1]

Basal Cell Carcinoma (BCC) is a slow growing malignancy predominantly occurring in sun exposed sites. It is associated with an inherited defect in the Hedgehog pathway signalling, in cases of Familial BCC. TP53 mutations are also common in both, familial, as well as sporadic types.[2]

CASE HISTORY

A 65-year-old post-menopausal (for 15 years) female presented to the hospital with the chief complain of a swelling in the right axillary region, first noticed around 2 years ago. Examination showed a hard, firm and painless mass of around 3X4cm in the right upper and outer quadrant of the right breast, with no other local positive findings. There were no palpable lymph nodes. Local examination also showed another lesion (3-3.5cm in length) dark, irregular, ulcerated

and slightly elevated (0.5-1.0cm) from the skin, over the region of the axillary tail of the right breast. This lesion was not present since birth, and was first noticed by the patient around 9 years ago, without any medical investigation done for the same. This lesion occasionally had serous, and/or bloody discharges (around once every 2-3 months), which would stop without any medical intervention. There were no significant findings in the left breast. Suspecting two malignancies i.e. those of Breast and Basal Cell Carcinoma (BCC), the patient was advised for surgical removal of the same. Mammography showed the breast lump as BIRADS 5 lesion.

The patient underwent Modified Radical Mastectomy (MRM), with excision of the breast tissue as whole, lymph nodes, and also including the suspected BCC. Histopathological Evaluation (HPE) revealed Invasive Ductal Carcinoma – Not Otherwise Specified (IDC- NOS) [Figure 1]. More than 3 foci with intermediate grade DCIS, solid, papillary and cribriform pattern with moderate pleomorphism and necrosis were reported with histological grade 1 and total score 1+2+1 =4. No perineural invasion was seen. Nipple areola complex was free of tumor. All margins and base and all the 13 lymphnodes submitted were free of malignancy. $T_2N_0M_x$ staging was done. Immunohistochemistry (IHC) showed triple positive (HER2/NEU, ER and PR) and p63 negative. HPE of the ulcerative skin lesion revealed BCC of the skin [Figure 2]. The patient was managed with uneventful chemotherapy on out-patient basis post operatively, with no fresh complains or lesions noted on serial follow up over the next one year.

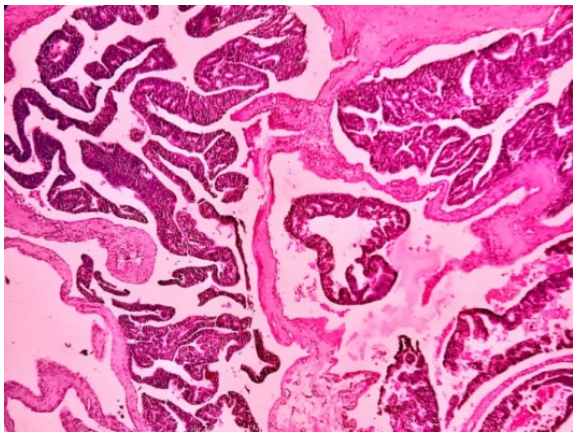

Fig 1: Invasive Ductal Carcinoma Breast

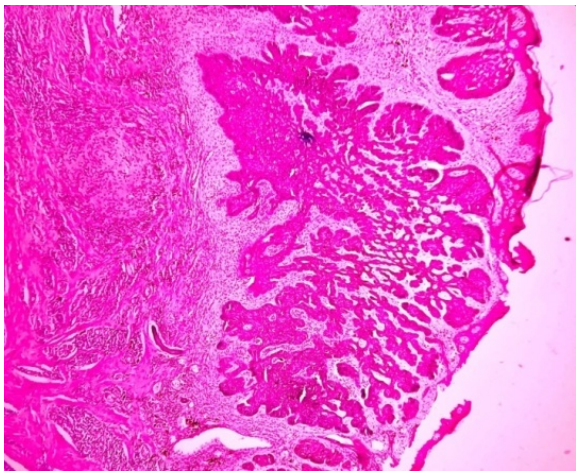

Fig 2: Basal Cell Carcinoma Skin

DISCUSSION

Coexistent malignancies are relatively commonly seen in syndromic cases, especially with a significant family history. However, to find multiple malignancies in the same patient without a significant family history, not associated with a syndrome, is relatively rare. Malignancies of the breast, metastasizing to the axillary lymph nodes, can be over-estimated histopathologically in the presence of concomitant tubercular lymphadenitis.[3,4] Munson-Bernardi BD[5] reviewed a case where a female with atypical cribriform type DCIS showed new lesions of amyloid calcifications in the same breast 2 years postoperatively. Cox J et al[6] reviewed a series of 3 patients with synchronous breast carcinoma and axillary lymphoma.

Similarly, BCC has also been documented to occur concomitantly with malignant melanoma,[7,8] and neurofibroma.[9] Belisle A et al[8] reported a case of an 82-year-old female with coexisting BCC and Lentigo Malignant Melanoma. Wallace ML et al[10] documented a case of BCC with an adjacent Trichoepithelioma and mentioned that this differentiation, although difficult to make histologically, was necessary for proper further management of the lesions.

However, no case reports of coexistent BCC and Carcinoma of Breast were documented from India, to the best knowledge of the authors. Morelle A et al[11] documented one such case with Grade II IDC Breast

with a nodular BCC in Brazil. They mentioned several chromosomal anomalies in the breast tumor genome, including Copy Number Alterations (CNA's), microdeletions and amplifications. Although our patient could not undergo genetic evaluation, a similar somatic mutation basis could be suspected to play a role in the development and progression of the malignancies.

CONCLUSIONS

It is necessary to spread awareness in the community regarding the possible suspicious lesions, which can be managed at the earliest. Genetic evaluation should be pursued, wherever possible. Although rare, multiple malignancies should be suspected even in the absence of positive family history, if examination suggests so, for an eye only sees, what the mind already knows.

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