



## Primary squamous cell carcinoma breast: management challenges of a rare case

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### Abstract:

Pure primary squamous cell carcinoma of the breast is an extremely rare malignancy that constitutes less than 0.1% of all primary invasive breast carcinomas. A 62 year old, multipara, post menopausal female patient presented with breast lump and after thorough investigation, she was diagnosed of having primary squamous cell carcinoma of breast. The patient was treated with combination chemotherapy and radiotherapy.

**Keywords:** Squamous Cell Carcinoma Breast, Primary Squamous Cell Carcinoma Breast

### Introduction:

Pure primary squamous cell carcinoma of the breast is an extremely rare malignancy constituting less than 0.1% of all primary invasive breast carcinomas [1, 2]. There are various criteria for the accurate and proper diagnosis of primary squamous cell carcinoma of the breast. These are when squamous cell carcinoma is the only malignancy found in the breast specimen, metastases from another primary are excluded, and the tumour does not originate from the skin of the breast. These tumors do not have any specific clinical and radiographic characteristics. These tumors are biologically very aggressive, treatment refractory and have a poor prognosis.

### Case Report:

A 62 year old, multipara, postmenopausal female patient presented with the history of painful lump in left breast for 1 year which was insidious in onset, initially of the size of a grape and gradually progressed. Managed symptomatically for couple of months, she had no relief. Six months later, she also noticed a pea-sized painless lump on axilla. No associated systemic symptom like, fever, weight loss, lump elsewhere over the body or gynecological complaint was there. Her general physical

examination and systemic examination were normal. On local examination a hard, fixed and tender lump of the size of 15x10 cm involving all quadrants of the breast which ruptured resulting in the formation of the ulcers with blood mixed serous discharge and multiple satellite nodules surrounding the ulcer [Figure 1]. Axillae examination showed bilateral palpable lymphadenopathy (a 2 x 2 cm hard, fixed, non tender node palpable along medial wall of right axilla and an ill defined hard, fixed and tender lymph node mass of size 3 x 3 cm palpable along medial wall of left axilla). Mammography revealed high density lesions in lower half of the left breast, abutting the chest wall. It is reaching and involving the overlying skin and nipple areola complex [Figure 2]. Chest X-Ray and USG whole abdomen including pelvis was within normal limits.

Wedge biopsy from ulcerative growth over lump showed moderately differentiated squamous cell carcinoma [Figure 3]. PET-CT was advised but was refused by the patient so CECT scan of abdomen and pelvis was done which was unremarkable. The patient was diagnosed as having primary squamous cell carcinoma of left breast and staged as T4cN2aM1.

Surgery was advised but patient was inoperable because of extensive locally advanced disease and opposite axilla diseases. Therefore patient was given 6 cycles of chemotherapy with inj. Paclitaxel 260 mg and inj. Carboplatin 450 mg i.v. every 3 weekly after which lump size regressed to 6 x 8 cm and one of the ulcer healed up completely while the other one decreased in size, left axillary lymphadenopathy persisted while right axillary lymph node disappeared. Subcutaneous nodules also disappeared.

Following chemotherapy patient received palliative external beam radiation in dose of 20 Gy in five fractions over 5 days to left breast by medial and lateral tangential fields in supine position with breast board on Cobalt-60 teletherapy machine. One month after completion of radiation therapy, ulcer healed and lump size was further regressed and was palpable beneath nipple and areola complex of size 3 x 4 cm but a left supraclavicular lymphadenopathy appeared of size 2 x 1 cm. Keeping in view of aggressive behaviour of disease the patient was kept on follow up and symptomatic treatment. But after 2 months she lost to follow up.

#### DISCUSSION:

Primary squamous cell carcinoma (PSCC) is a well-known malignancy of the skin and other organs composed of squamous cells, which are normally not found inside the breast. It is an extremely uncommon and represents less than 0.1% of all primary invasive breast carcinomas [1, 2]. Diagnosis is established when no other neoplastic components such as ductal or mesenchymal elements are present in the lesion, the tumor origin is independent of the overlying skin and nipple and absence of an associated primary squamous cell carcinoma in a second site (oralcavity, bronchus, esophagus, renal pelvis, bladder, ovary, and cervix) [3]. The histogenesis of this malignancy is uncertain. It may be a pure squamous cell

carcinoma arising from ductal epithelium or may be a very extreme form of squamous cell metaplasia, developing into an adenocarcinoma [4]. PSCC of the breast has been diagnosed in adult women of ages ranging from 29 years to 90 years [5]. No case was described in the male. These tumors (PSCC) tend to be relatively large (> 4 cm) at diagnosis and cystic in 50% of the cases [6]. Some authors have noted only rare involvement of the lymph nodes, but in our case there was bilateral axillary involvement [7]. There are no typical findings on the mammogram, ultrasound may show a complicated cyst or an inflammatory process. Primary Squamous cell carcinoma of the breast is generally a high-grade and triple negative tumor (ER, PR and HER2-negative) [8]. There are no treatment recommendations because of the rarity of this distinct type of breast cancer. Most patients should undergo a mastectomy with lymph nodes dissection if possible. Conservation surgery is not usually feasible because of the locally advanced of the disease [9, 10]. There is still no consensus regarding adjuvant therapy. Hennessy et al. also reported no benefit to neoadjuvant therapy using anthracycline/taxane-based regimens [2]. Though Squamous cell carcinoma are generally radio sensitive, yet radiation therapy has shown a little benefit and its role in the management of squamous cell carcinoma of the breast still remains unclear [11]. PSCC of the breast is usually a hormone receptor and HER2-negative tumor this means that hormone based therapy and HER-2 targeted therapy may not be effective in this tumor [12]. The high frequency of EGFR positivity should be used to explore the role of anti-EGFR therapy in the management of squamous cell carcinoma of breast [2, 8]. The prognosis of this malignancy remains poor with five years overall survival ranging from 38% to 64% [2, 9] which could not be assessed in our patient as the patient lost to follow up.

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Figure 1

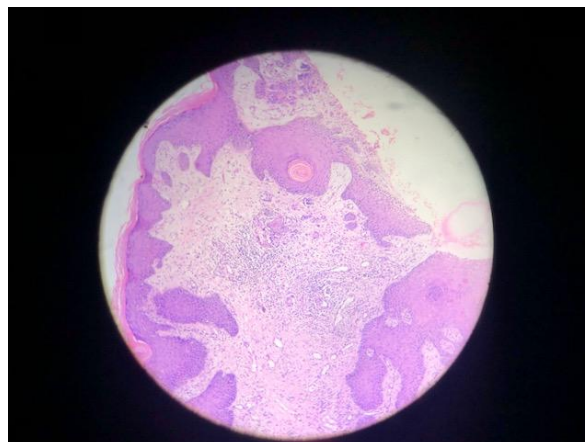


Figure 2a

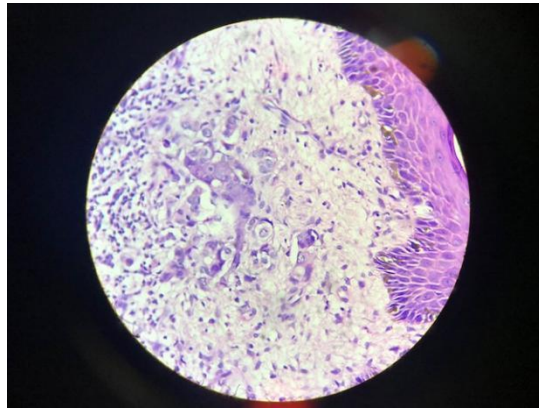


Figure 2b

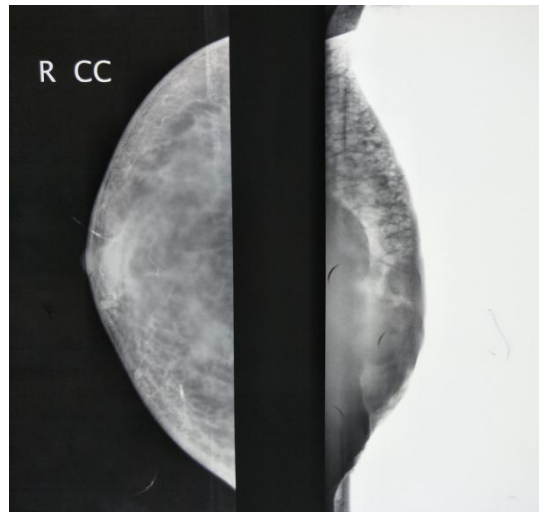


Figure 3a

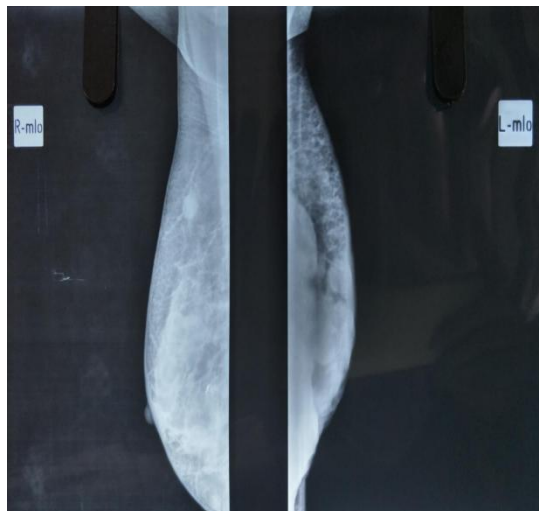


Figure 3b