



## Hypopharyngeal Cancer With Rare Breast Metastasis – A Case Report

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### ABSTRACT

Metastatic squamous cell carcinoma of the breast from primary hypopharynx is very rare, so far has not been reported in the literature. We report a case of a 50-year-lady who presented with hypopharyngeal primary and lump in the left breast. Prognosis is uncertain due to its rarity.

### KEYWORDS

primary hypopharyngeal carcinoma, metastatic squamous cell carcinoma breast, prognosis.

### BACKGROUND:

Metastasis to breast from non-breast primaries is relatively unusual. Pure squamous cell carcinoma of breast has been reported in few case reports. Head and neck cancers are known to commonly metastasize to bone and lung. Many cases of metastasis to head and neck region have been reported in primary breast malignancy but vice-versa is not known. Hypopharyngeal cancers metastasis to breast is very rare. Review of literature shows no such reports. It is one of its kinds and rarest case which has been reported in this case report.

### CASE PRESENTATION:

Female patient aged 50 year presented with complaints of throat pain, difficulty in swallowing solid foods and change in voice of 2 months duration. At presentation patient had dyspnoea with stridor for which she underwent emergency tracheostomy.

Patient had past history of left eye Enucleation, 6 years back, cause-trauma. She had attained her menopause 10 years back and had 2 daughters and 1 son, full term normal vaginal delivery, all children were breast feed. Patient had no family history of cancer.

Clinical examination revealed an ulceroproliferative growth involving right Pyriform sinus extension to right arytenoids, right aryepiglottic fold, right half of epiglottis, right lateral pharyngeal wall with restricted right vocal cord mobility.

She also had a right upper jugular lymphnode measuring 3\*2 cm, hard, fixed, non-tender (Figure 1). Her routine investigation -Hemogram and biochemistry, chest X-ray PA were normal, computed tomography showed ill defined lesion in right Pyriform sinus with irregular margins extending to right aryepiglottic fold, right half of epiglottis, right vocal cord, posterior pharyngeal wall measuring 4.3\*2.5\*3.2 cms with significant luminal narrowing. Two Enlarged right levels II/III lymphnode largest measuring 2.7\*2.2 cm. Biopsy from primary showed squamous cell carcinoma, grade I and FNAC from level II lymphnode- metastatic squamous cell carcinoma. Final diagnosis of carcinoma right Pyriform sinus CT3N2aM0 and patient was planned on concurrent chemoradiation. Patient complained of noticing a lump in her left breast after starting chemoradiation. Examination revealed a lump in her left breast, non-tender. Examination of left breast revealed solitary, hard lump measuring 1\*1 cm, non-tender, mobile, not fixed to underlying chest wall or overlying skin, no axillary lymphadenopathy (Figure 1). Opposite breast was normal. There was no significant past or family or obstetric history or oral contraceptives use. MRI scan of breast showed- a hypointense lesion in T1 (Figure 2) and a hyperintense lesion in T2 (Figure 3) measuring 1\*1.2\*1 cm seen in left breast parenchyma and enhancement after fat saturation with choline peak (Figure 4). FNAC of the left breast lump revealed metastatic squamous cell carcinoma (Figure 5, 6 and 7). Patient was initially started on radiotherapy along with concurrent chemotherapy to head and neck. Patient refused to undergo surgical excision of the left breast lump, even after explaining the outcome and its

prognosis. Regular follow up which the metastatic deposits in left breast resolved Post radiotherapy 3 months. Patient is in complete response both primary and also metastasis to breast after one year follow up.



Figure 1: patient sitting with her arms pressed against waist. Black arrow is showing right cervical lymphadenopathy and white arrow is showing left breast lump.

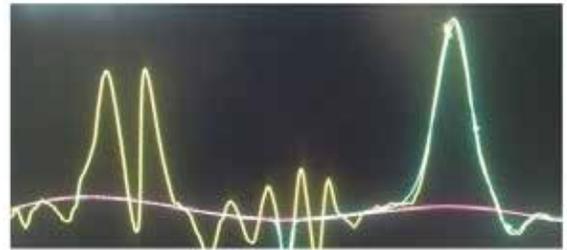


Figure 4: MRI scan of breast showing enhancement after fat saturation with choline peak.



Figure 2: MRI scan of breast showing a hypointense lesion in T1 in left breast parenchyma.

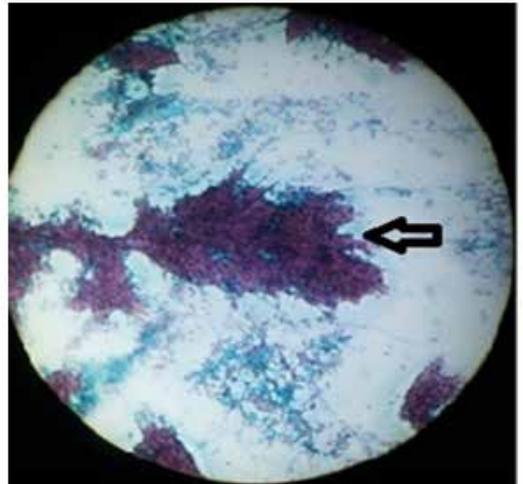


Figure 5: FNAC of left breast lump under high resolution (10X) shows clusters of keratinized squamous epithelium with scattered neoplastic cells. Black arrow shows clusters of neoplastic keratinized squamous cells.



Figure 3: MRI scan of breast showing a hyperintense lesion in T2 measuring 1\*1.2\*1 cm seen in left breast parenchyma

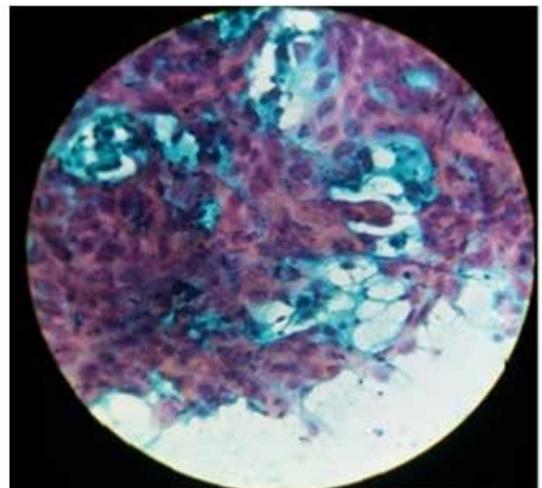
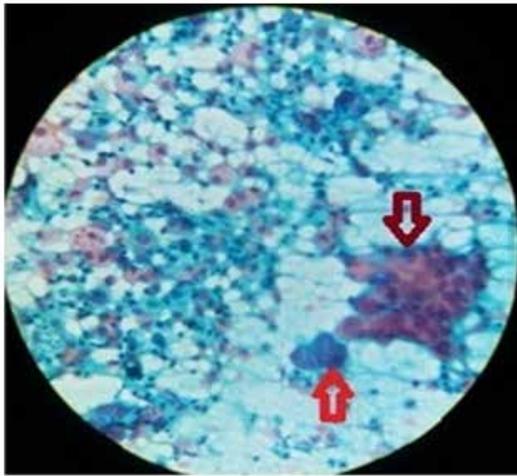


Figure 6: FNAC of left breast lump under 40X resolution – clusters of neoplastic keratinized squamous cells with background showing scattered neoplastic squamous cells with neoplastic giant.



**Figure 7: FNAC of left breast lump under 40X resolution. Maroon arrow showing neoplastic keratinized squamous cells with background showing scattered neoplastic squamous cells. Red arrow pointing neoplastic giant cells.**

#### DISCUSSION:

Metastasis to breast from non-breast primaries is relatively unusual. Incidence of non-primary breast tumors ranges about 0.1%.<sup>1, 2, 3, 4</sup> SCC of the breast was first reported in 1908 by Troell.<sup>9</sup> It has been reported in case series published by Barry D. Toombs that most common cause for metastasis in breast are melanomas, bronchogenic carcinoma, lymphoma, leukemia, carcinoma of stomach and fibrosarcoma of nasal septum has been reported.<sup>5</sup> The mean age at presentation is 54 years.<sup>18</sup>

There are three ways a cancer can spread in the body-by invading the surrounding normal tissue or through the lymph system or through the veins and capillaries.

Usual presentation-solitary discrete lesion in the breast (85%), multiple lesions (11%) and diffuse (4%) involvement is less common. Bilateral lesion was seen in 26% of patients. Most of the lesions are superficial, located in upper outer quadrant (66%), upper inner quadrant (17%), lower inner quadrant (5.5%), lower outer quadrant (5.5%), and central (5.5%).<sup>5</sup> There was no clear predisposing factors (e.g. usage of hormones, pregnancy, post partum, fibrocystic disease). Survival rates are poor following diagnosis of breast metastasis. Crude survival rate is usually 13 months in breast metastasis in contrary to primary breast malignancy which is 5 years.<sup>6</sup>

Squamous cell carcinoma (SCC) of the breast is an uncommon tumor that is diagnosed when more than 90% of the malignant cells are of the squamous type.<sup>7</sup> Clinical and radiologic appearances are not specific, and tumors are usually hormone receptor-negative.<sup>8</sup> It is thought to arise directly from the epithelium of the mammary ducts, although an alternate theory is that the tumor arises from foci of squamous metaplasia within a preexisting adenocarcinoma of the breast<sup>10, 11</sup>. Moreover, this may explain the occurrence of primary squamous cell carcinoma.<sup>12</sup> Hypothesis that squamous cell metaplasia is also seen in cysts, chronic inflammations may evolve into carcinomas is further supported by many cases, where primary squamous cell carcinoma is reported after its initial appearance as a benign disorder (abscess or after implantation of a breast prosthesis or after radiation therapy)<sup>12, 13, 14, 15, 16, 17</sup>.

In our case report, however, there was no such pre-existent abnormality. The diagnosis of primary SCC of the breast can only be made in the absence of an associated primary SCC in a second site and in the absence of skin involvement.<sup>19, 20</sup>

In contrary, our case report has primary from hypopharynx which metastasized to breast, located in upper inner quadrant, without any predisposing factors.

#### CONCLUSION:

Metastasis to breast from non-breast primaries is relatively unusual. Pure squamous cell carcinoma of breast has been reported. A thorough literature review in regard to metastatic squamous cell carcinoma of breast from primary hypopharyngeal carcinoma has not been published. It is one of its kinds and rarest case which has been reported in this case report.

#### LIST OF ABBREVIATIONS:

PA – posteroanterior

Cm – centimeter

FNAC – Fine needle aspiration cytology

#### COMPETING INTERESTS:

No competing interests were involved in this case report.

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