INTRODUCTION

Breast metastases from extramammary neoplasms are uncommon with an incidence of 0.5% to 3% of patients with extramammary malignancy. Breast metastasis is often confused with primary breast malignancy. Accurate differentiation of metastatic breast carcinoma from primary breast carcinoma is of crucial importance because the treatment and prognosis differs significantly. The pathologist has a key role in making the diagnosis of metastasis to the breast when histological appearance is similar to primary breast tumor. The clinical history is helpful to make the diagnosis. Metastasis to the breast usually indicates disseminated metastatic disease and poor prognosis. Despite the fact that the lung is the most common cancer site in terms of incidence and mortality, there are only few published cases on lung cancer metastasizing to the breast. We are reporting a rare case of metastasis to the breast from squamous cell lung cancer at the onset of presentation in a 60-year-old female.

CASE REPORT

A 60-year-old women suffered from dry cough and shortness of breath for three weeks with simultaneous presence of a painful lump in the upper outer quadrant of right breast for same duration. She came to our pulmonary medicine clinic when she had an episode of hemoptysis. She was a bidi smoker for 40 years with a smoking index 800. She had moderate pallor without any clubbing and palpable peripheral lymph nodes. On examination of respiratory system, there were signs of right upper lobe (RUL) collapse like dull percussion note in apical area of right side with shifting of trachea to the right side. Examination of breast lump revealed a hard 3 × 3 cm globular tender freely mobile lump in upper outer quadrant of right breast without any fixity to skin and deeper structures and without any fistula and sinus formation. Left breast was normal. There was no discharge from both the nipple and it appeared normal. She was non-diabetic, non-hypertensive and had anemia.

On chest x-ray there was a presence of homogenous triangular opacity on right side at apical area with shifting of horizontal fissure and shifting of trachea to the ipsilateral side suggestive of RUL collapse. Sputum for Zeihl-Neelsen...
Although distribution of distant metastases from hemangioma, choroids plexus, muscle, umbilicus and sites are stomach, pancreas, small bowel, arteriovenous kidney abdominal nodes etc. involved organs include liver, adrenal glands, brain, bone, cancer can occur in 11% to 36% of patients and commonly metastasis in a case of newly diagnosed non-small cell lung cancer.

**DISCUSSION**

Metastasis in a case of newly diagnosed non-small cell lung cancer can occur in 11% to 36% of patients and commonly involved organs include liver, adrenal glands, brain, bone, kidney abdominal nodes etc.[3,4] Among unusual metastatic sites are stomach, pancreas, small bowel, arteriovenous hemangioma, choroids plexus, muscle, umbilicus and the penis. Squamous cell lung carcinoma with metastasis to the breast at presentation has rarely been reported. Breast metastases usually present as well-circumscribed, palpable, freely mobile, rapidly growing, painless firm masses in the upper outer quadrant of breast. Multiple, bilateral and diffuse involvement of metastatic lesions is uncommon.[5]

Breast metastasis can be diagnosed between a time interval of 1 month and 15 years after the diagnosis of primary extramammary neoplasm, with averages between 1 and 5 years.[6] Occurrence of breast metastasis is high in pubescent, lactating, and pregnant women as female hormones may play role in cancer predisposition.[6] Overall metastasis to the breast has been associated with poor prognosis with most patients dying within a year of diagnosis.[7]

Mammography may be useful in the differential diagnosis of primary and metastatic breast malignancy. The typical mammographic presentation of metastatic breast malignancy is a round and dense mass with absence of microcalcifications and speculation, except in the rare cases of metastasis from ovarian carcinoma, and neither architectural distortion nor thickening of the skin is present.[8] Because the metastatic breast lesion evokes minimal proliferation of fibrous tissue surrounding the lesion, it is about the same size on palpitation and mammography. In contrast, the palpable mass of primary breast carcinoma is frequently larger than the mammographic size.[9] Fine-needle aspiration cytology has been reported to successfully identify both primary and metastatic malignancy in the breast.[10] Although radiology can provide some information to distinguish primary breast cancer from metastatic disease, excisional or core biopsy is usually needed for final diagnosis. The contribution of immunohistochemistry is very crucial to confirm the diagnosis, as in our case. Secondary malignancy metastatic to the breast is uncommon, yet this entity does exist. In view of the optimal treatment plan, a metastatic breast lesion should not be mistaken for a primary breast carcinoma.

**REFERENCES**


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