

Endobronchial Metastasis from Breast Carcinoma

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Citation

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Abstract

Breast cancer is a common malignancy. Lung metastasis to the parenchyma can be seen in 20 to 50% of series. Endobronchial metastasis due to breast carcinoma is a rare finding in these patients and entitles a grim prognosis. Majority of patients have minimal or no pulmonary symptoms. We report a case on an endobronchial metastasis due to infiltrating Adenocarcinoma of the breast after four years of the initial diagnosis.

INTRODUCTION

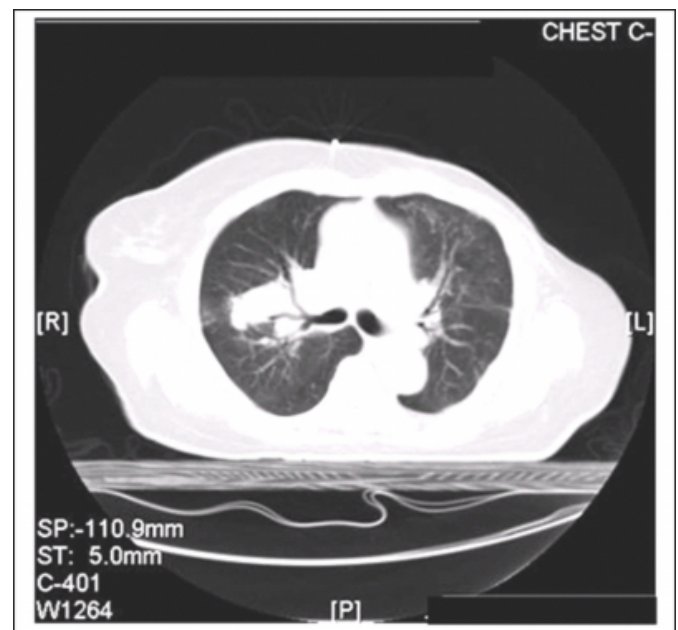
The incidence of lung metastases is estimated to from 20 to 50% in nonpulmonary primary tumors. The incidence endobronchial metastasis is estimated to be approximately 2%. We report a case of EB metastasis four years after a treated breast carcinoma.

CASE PRESENTATION

An 85 year old African American female was admitted in September 2003 for uncontrolled hypertension. Her past medical history was remarkable for left breast carcinoma Stage T3N0M0 in 1999, for which she underwent radical mastectomy. A recent parenchymal lesion in the right upper lobe was under investigation. Chest radiography on admission revealed a partial right upper lobe atelectasis. During hospitalization the patient developed acute respiratory distress requiring intubation. Computed Tomogram (CT) of chest confirmed a 4 x 5 cm hilar mass with mediastinal lymphadenopathy (Fig 1).

Figure 1

Figure 1: CT Chest showing a right hilar 4x5cm mass and compression of the airway.



Fiberoptic bronchoscopy was done which revealed an endobronchial lesion partially occluding the right main stem bronchus. Biopsy showed infiltrating adenocarcinoma. Comparison of the histopathological features of the original breast carcinoma and the endobronchial lesion demonstrated similar pathology. Hormonal receptors were positive in both specimens. Patient was treated with letrozole and transferred to a long term facility for comfort measures only, as per family request.

DISCUSSION

Endobronchial metastasis from nonpulmonary cancer is

uncommon, occurring in 2-5% of patients with cancer at necropsy. The first case of endobronchial metastasis from breast cancer to the mucosa of a major bronchus was reported in 1978 (1). Kreisman and collaborators reviewed 660 cases of breast carcinoma and found 119 (18%) cases with thoracic metastasis, 5.8% of these being endobronchial (2). The most common type of breast histopathology to cause endobronchial metastasis was infiltrating ductal adenocarcinoma (2), as in our case. In these series up to 27% of patients were asymptomatic.

The appearance of endobronchial metastasis is usually one of mucosal edema and thickening since the tumor usually involves the submucosal lymphatics. Tumor cells are carried to the lung by pulmonary arteries and lymphatics, enter peribronchial lymphatics, giving rise to subepithelial deposits of tumor growth (3).

Kiryu and collaborators reported 16 patients with endotracheal /endobronchial metastases; they used findings from Fiberoptic Bronchoscopy, chest radiographs, CT, and histopathology to classify their patients into the four following categories:

- Type I- direct metastasis to the bronchus,
- Type II- bronchial invasion by a parenchymal metastatic lesion,
- Type III- bronchial invasion by mediastinal or hilar lymph node metastasis

- Type IV- peripheral lesion extending along a proximal bronchus.

The treatment of endobronchial metastases is determined by biologic behavior, anatomic location, evidence of other metastasis, and patient performance status, hence must be individualized (3).

CONCLUSION

In conclusion, we report a patient with type II endobronchial metastasis from a breast cancer four 4 years after surgery. A high index of suspicion for endobronchial/endotracheal metastasis should be kept in those patients with history of breast cancer, especially if they have any respiratory symptoms. In view that up to 20 to 27% of patients can be asymptomatic; consideration for screening chest imaging should be entertained.

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