



A CASE REPORT: BRONCHIOLOALVEOLAR CARCINOMA PRESENTED AS MODERATE PLEURAL EFFUSION ADMITTED IN THE P. D. U. CIVIL HOSPITAL, RAJKOT, GUJARAT.

Medicine

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ABSTRACT

Bronchioloalveolar carcinoma (BAC) is a peculiar form of lung carcinoma with variable clinical, radiographic, and histological presentation and occurs most frequently among non-smokers, women and Asians. It is a subtype of adenocarcinoma of lung, but has significantly variable presentation, treatment and prognosis. BAC has now reclassified and the term adenocarcinoma in situ is used for BAC tumors. Bronchioloalveolar carcinoma represents 2-6 % of lung malignancies. We were reported a case of 70yr old non-smoker male hospitalized in P.D.U. civil hospital, Rajkot and diagnosed as Bronchioloalveolar carcinoma on basis of CT guided FNAC and biopsy.

KEYWORDS

Bronchioloalveolar, Non-smoker, CT Scan, FNAC, Biopsy

INTRODUCTION

The definition of BAC was revised by the World Health Organization (WHO) in 2004, with changes made to the diagnostic criteria and classification.^[1] BAC was defined as an adenocarcinoma of the lung that grows in a lepidic fashion along the alveolar septa without invasion of stroma, blood vessels, or pleura. Patients most commonly present between the fifth and eighth decade of life, although children as young as 12 years have been reported. Women have a high incidence of bronchioloalveolar carcinoma compared to other forms of lung cancer, and represent 30-50 percent of patients. Causal linkage with cigarette use is not clearly established, as up to 25-50 percent of patients may be nonsmokers. BAC has been sub-classified into three types: nonmucinous, mucinous, and mixed. Because of the rarity of BAC and the recent change in its definition, risk factors associated with the development of BAC are poorly understood. Smoking has not always been thought to be a risk factor for BAC.^[2,3] It is estimated that approximately 30% of patients with BAC are non-smokers, compared with 15% of patients with adenocarcinoma and 5% of patients with squamous cell carcinoma.^[2] Grossly, all subtypes of BAC may appear as a solitary nodule, multiple nodules, effusion or diffuse consolidation mimicking pneumonia ("pneumonic pattern"). Solitary nodule are more commonly seen with the nonmucinous pattern, and the pneumonic pattern is more frequent with the mucinous subtype.^[4] Both mucinous and nonmucinous subtypes may show coexistent alteration of the alveolar septa, such as prominent lymphoplasmacytic infiltrates, amyloid deposits, osteocartilaginous metaplasia, and fibrosis.^[4]

CASE REPORT

A 70 year old male, non-smoker, retired employee (ex-teacher), come from lower middle socioeconomic class consulted to the department of pulmonary medicine for unrelenting cough, mild mucoid expectoration, breathlessness and weight loss of 3 months of duration. No complain of fever, chest pain or hemoptysis. Patient was physically active and stable. Patient does have Diabetes mellitus since 5 years (on regular treatment), no any other comorbidities.

EXAMINATION

Patient was hemodynamically stable, non-febrile, maintaining SpO₂. Auscultatory finding suggestive of decrease air entry on left side of chest. No any enlarged cervical and axillary lymph nodes palpable on local examination. Grade-I clubbing was present.

INVESTIGATION

Haematological examinations including CBC, Coagulation profile, RFT & LFT were within normal limits. Sputum cytology shows no malignant cell, Sputum AFB & CBNNAT shows negative results. Ultrasonography of chest has left side moderate to gross pleural effusion. Thoracentesis performed on patient, pleural fluid was straw colored with exudative picture. Fluids have a lymphocytic

predominance and ADA result was negative. CECT Thorax shows mild to moderate pleural effusion with internal blood density content and partial passive collapse of underlying left lung parenchyma and consolidation involving superior & postero-basal segment of left lower lobe with mediastinal lymphadenopathy.



Figure-1 Chest radiograph shows left sided pleural effusion

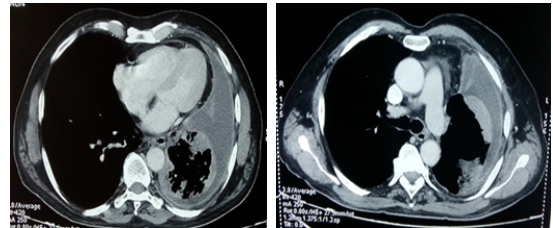


Figure-2 Axial CT images demonstrate a left side pleural effusion with collapsed lung and area of consolidation.

SUSPICION

On basis of clinical assessment, CT thorax and pleural fluid findings that patient might having following suspicion which are mention below;

- (1) Diffuse pulmonary tuberculosis with pleural effusion.
- (2) Multicentric lung carcinoma or bronchioloalveolar carcinoma with pleural effusion.
- (3) Lymphoma with pleural effusion.

CONFIRMATORY INVESTIGATION

CT guided FNA and biopsy carried out which confirmed Bronchioloalveolar carcinoma.

DISCUSSION

Bronchioloalveolar carcinoma(BAC) has a unique clinical and radiological presentation and a different response to systemic treatment compared with conventional lung adenocarcinoma. Although tobacco-related BAC is found disproportionately in non-

smokers, women, and Asian patients^[5] A subset of BAC, mucinous BAC, has poorer outcomes than nonmucinous BAC and accounts for 20% of BACs. In contrast to nonmucinous BACs, which most commonly present as small peripheral nodules, mucinous BACs frequently masquerade as pneumonia or pleural effusion often resulting in a delay in diagnosis^[6]

CONCLUSION

In elderly group of patients with afebrile, chronic cough, coupled with dyspnea and weight loss with multi centric interstitial and parenchymal CT lesion with pleural effusion should raise suspicion of Bronchoalveolar carcinoma.

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