



Bronchoalveolar carcinoma presenting as non-resolving pneumonia

KEYWORDS

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ABSTRACT *Bronchoalveolar carcinoma presenting as nonresolving pneumonia is not so common. The classical presentation of bronchoalveolar carcinoma is asymptomatic (solitary nodule). Here we report a case of bronchoalveolar carcinoma presenting as nonresolving pneumonia in a 46 year old male with cough, breathlessness, low grade fever with features of left upper lobe consolidation on chest x-ray. CT guided biopsy revealed bronchoalveolar carcinoma.*

INTRODUCTION

Bronchoalveolar carcinoma is a subtype of adenocarcinoma of lung but having different presentation, treatment and prognosis. This occurs most frequently in nonsmokers, women and Asians. It represents 6.5% of pulmonary neoplasms (1). Bronchoalveolar carcinoma was defined in the 1999 WHO classification as showing lepidic growth, growth along preexisting alveolar structures without evidence of stromal, vascular or pleural invasion(2). It develops from terminal bronchiolar and acinar epithelia. We present a case who presented with consolidation.

CASE PRESENTATION

A 45 year old male, former smoker, farmer by occupation had 8 months history of breathlessness, 3 months history of productive cough. He had history of low grade fever, weakness and fatigue. Previously he was diagnosed as a case of community acquired pneumonia and received antibiotics several times from local hospital but his symptoms did not subside. So he was referred to our hospital for further investigations and management. On physical examination patient was average built, afebrile, pulse rate -92/min, blood pressure - 130/70 mmHg, respiratory rate- 22/min, and Spo2-98% on room air. On auscultation bronchial breath sound was heard on left mammary area. Complete blood count, renal function tests, liver function tests were within normal range. Chest X-rays revealed left upper lobe consolidation. (Fig-1 &2) Fiber optic bronchoscopy was done and bronchoalveolar lavage (BAL) was taken from left upper lobe segments of lung. BAL was negative for acid fast bacilli stain, sterile for cultures. BAL fluid cytology did not show any specific disease. CT guided biopsy was performed revealing a classic histological pattern consistent with mucinous bronchoalveolar carcinoma (fig-3). Immunohistochemistry was done which showed positive for TTF-1 and negative for ALK-1 amplification.

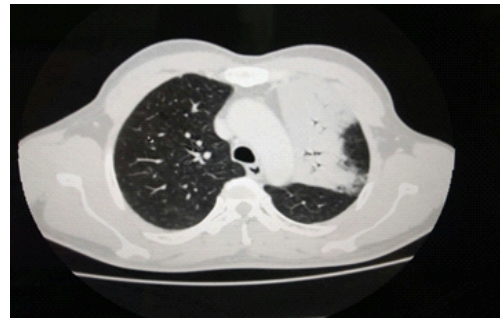


Figure 1 &2. CT scan thorax showing left upper lobe consolidation

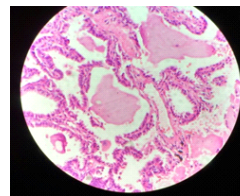


Fig-3 Histopathological slide showing pulmonary parenchyma with carbon laden macrophage and neoplastic cells arranged in lepidic pattern exhibiting minimal pleomorphism. Also seen mucin-containing (mucinous) tumour cells.

DISCUSSION

In the World Health organization (WHO) classification, bronchoalveolar carcinoma is considered as a subtype of adenocarcinoma (3). BAC can present as a solitary peripheral lung nodule, multiple nodules or lobar consolidation. Solitary nodules most common in nonmucinous pattern and the pneumonic pattern is more frequent with the mucinous subtype (4). The X-ray picture with lobar consolidation can mimic bacterial pneumonia and the diagnosis is not possible until the clinical symptoms and X-ray abnormalities do not respond to treatment. More than half of the patient remain asymptomatic even as the disease disseminates. Bronchorrhea is a late manifestation with diffuse BAC (5). In our case we describe a patient with nonresolving consolidation, left upper lobe. Patient had negative sputum cytological and bacteriological examination. The patient thereafter underwent bronchoscopy followed by CT guided lung biopsy which demonstrated features of Bronchoalveolar carcinoma. This case represents nonresolving consolidation and treated as pneumonia in local hospital. Small, solitary nonmucinous BACs are associated with a markedly better prognosis compared with invasive adenocarcinoma and may be cured with surgical resection. Tumors with pure lepidic growth may also show a better response to EGFR-targeted therapies. Diffuse BAC is an aggressive tumor and responds poorly to chemotherapy, surgery is rarely successful.

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