Research Paper Medical Science

A Rare Presentation of Bronchoalveolar Carcinoma of Lung presenting as Bilateral Cystic Bronchiectasis

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ABSTRACT

A middle aged lady presented with dyspnoea for three months with no apparent cause, CT thorax done was suggestive of bilateral diffuse cystic bronchiectasis. Bronchoscopy was done and transbronchial biopsy was taken the results of which were inconclusive. Then patient was planned for transthoracic lung biopsy which came out to be positive for malignancy adenocarcinoma (bronchoalveolar carcinoma-Mucinous type). The radiological presentation of BAC as bilateral cystic shadows is very uncommon.

KEYWORDS :

INTRODUCTION:

BAC is defined as a subtype of adenocarcinoma with intraalveolar spread and lepidic growth along an intact interstitial framework, but with no evidence of stromal, vascular or pleural invasion and it has a distinct clinical presentation, tumor biology, response to therapy, and prognosis compared with other subtypes of non–small-cell lung carcinoma (NSCLC). BAC more commonly demonstrates aerogenous rather than lymphatic spread, and radiological diversity from focal to diffuse disease. We report an unusual radiological presentation of BAC with bilateral bronchiectasis.

CASE REPORT:

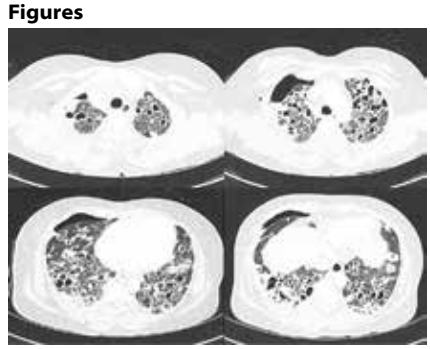
A 56 year old, multiparous, non-addict female patient with no significant past medical history was symptomatic for fever on and off, productive cough and shortness of breath since last 3 month duration. No history of pulmonary tuberculosis or taking ATT in past. On general examination patient was breathless at rest with tachycardia. Grade II clubbing was present. There was no evidence of pallor, cyanosis, pedal edema, raised JVP or lymphadenopathy. Chest auscultation revealed coarse inspiratory crepitations, with no signs of wheezing or pleural rub. Rest of the physical examination was unremarkable. Chest X-ray bilateral cystic shadows more predominant in basal and mid lung zones. Routine blood investigations were normal, ecg was normal, ABG suggestive of respiratory alkalosis, pulmonary function test suggestive of restrictive defect with no obstruction, sputum for acid fast bacilli was negative and sputum culture and sensitivity did not show growth of any pathogens, sputum for malignant cells was negative. USG abdomen was normal. CT thorax was suggestive of extensive bilateral bronchiectasis with bronchial wall thickening with few randomly distributed nodules. Bronchoalveolar lavage and transbronchial biopsy were inconclusive, following the procedure patient developed iatrogenic pneumothorax on right side, intercostal drainage tube was inserted and kept for 6 days until the resolution of pneumothorax. Transthoracic CT guided lung biopsy was done which was suggestive of well differentiated adenocarcinoma (Bronchoalveolar Carcinoma-Mucinous type). PET scan was not done due financial constrains. Then, the patient was started on oral geftinib 500mg od.

DISCUSSION:

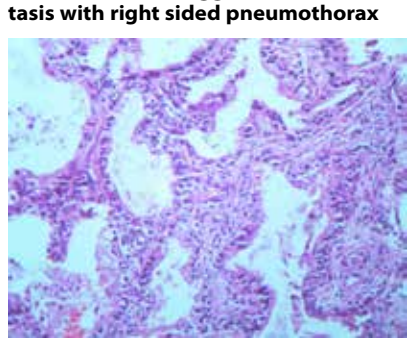
Bronchioloalveolar cell carcinomas account for about 4% of all non small cell lung cancers. BAC differs from other lung cancers as there is a female preponderance (53%), and a significant number of lifelong nonsmokers(37%) are affected. Clinical symptoms include cough, shortness of breath, hemoptysis and bronchorrhea(1). Often, patients are asymptomatic with incidentally detected radiological abnormalities (1)Radiologically, three patterns are reported: (a) solitary pulmonary nodules or mass, (b) consolidative changes resembling pneumonia, or (c) multifocal nodules or masses(2). The solitary nodule is the most frequent radiographic presentation(56%) and can be a ground glass opacity or more solid with ill defined margins. Intratumoral radiolucencies in the form of air bronchograms, pseudocavitation, heterogenous attenuation and pleural tags are often present. Diffuse consolidative changes are present in 30% of the patients. Multifocal disease is seen in the form of ground glass opacities, solid nodules or masses and occurs frequently with the mucinous subtype. Bilateral bronchiectatic forms of BAC are exceedingly rare.

Surgical resection is the therapy of choice in early stage tumor. In patients with EGFR mutations and advanced disease, chemotherapy with EGFR inhibitors has shown improved outcomes. Radiation therapy and outcomes are similar to other non small cell lung cancers.The prognosis of patients with surgically resected solitary nodules is good with five year survivals in the 100% range with low rates of recurrence. The multifocal and consolidative forms have a poorer prognosis.

Figures



1.HRCT of chest suggestive of Bilateral Cystic Bronchiactasis with right sided pneumothorax



2.Histopathology of CT Guided biopsy of lung showing Bronchoalveolar Carcinoma-Mucinous type

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2. Patsios D, Roberts H, Paul N, et al; Pictorial Review Of The Many Faces Of Bronchioloalveolar Cell Carcinoma; The British Journal Of Radiology, 80 (2007), 1015–1023.