

## Case Report

**Adenoid Cystic Carcinoma of the Left Main Bronchus: A Case Report**Padam Parmar<sup>1</sup>, Gajender Singh<sup>2</sup>, Tapasya Saini<sup>3</sup>, Meenu Gilotra<sup>3</sup>, Yashika Bhatia<sup>3</sup>, Sonu Kalyan<sup>3</sup><sup>1</sup>Senior Resident, <sup>2</sup>Associate Professor, <sup>3</sup>Resident,  
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**ABSTRACT**

Adenoid cystic carcinoma (ACC) is more common in salivary gland and rare in the lower respiratory tract that can arise from submucosal bronchial glands in the main stem bronchus. Primary ACC of lung must differentiate from metastatic carcinoma specially from salivary gland. Bronchoscope guided fine-needle aspiration smears are more useful than bronchoalveolar lavage smears for pathologic diagnosis of ACC. Here we reported a case of primary ACC of left bronchus in 62 years old female on cytological examination.

**Keywords:** Lung, left bronchus, adenoid cystic carcinoma.

**INTRODUCTION**

Adenoid cystic carcinoma (ACC) of the lung arises from submucosal the bronchial glands and is relatively rare accounting for 0.04-0.2% of all primary lung cancers. [1,2] It grows slowly with benign clinical course. Morphologically ACC of lung cannot differentiate from salivary gland tumor; however TTF-1 marker is negative in ACC of salivary gland. [3] We reported a case of primary ACC of left bronchus in 62 years old female on cytological examination.

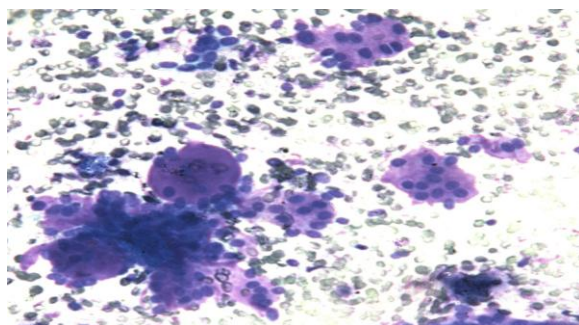
**CASE REPORT**

Fig.1. FNA smears show hyaline globules with basaloid cells. (200X)

A 62 year old woman presented with shortness of breath, cough with expectoration and fever on and off for past 15 days. Past medical history was insignificant. Family history was unremarkable and she had never been a smoker. She had no history of weight loss and contact with tuberculosis case. During physical examination, she was anemic. The biochemical tests and hematological parameters were within normal limits. Pulmonary function tests revealed moderate obstruction. Contrast CT scan revealed consolidated left lung with complete cutoff of the left main stem bronchus and a lobulated lesion at the level of the bronchus - likely neoplastic. On fiberoptic bronchoscopy, a mass was present in left endobronchial wall. Bronchial washings showed no evidence of malignancy. Endobronchial FNAC smears from intrabronchial mass in left main bronchus show features of adenoid cystic carcinoma. (Fig.1&2) Detailed examinations in the head and neck especially salivary gland regions

were normal on clinical and radiological examination.

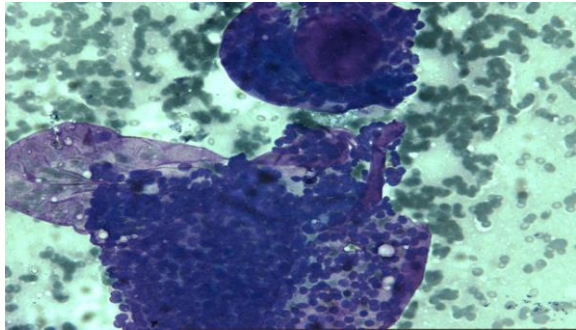


Fig.2. FNA smears show hyaline globules attached with clusters of basaloid cells. (200X)

## DISCUSSION

Adenoid cystic carcinoma (ACC) of the lung is a rare malignant tumor arising in the submucosal tracheobronchial glands distributed in the airway epithelial lining. This tumor is cytomorphological similar to ACC arising in the salivary glands. [1] ACC of lung is considered as low grade malignancy due to prolonged clinical course with slow growing nature of tumor in lung. [2] ACC represents <0.2% of all primary lung cancers and more commonly (>90%) arise in the central bronchi than segmental bronchi. [3,4]

Often presents as an endobronchial obstructing mass lesion causing post obstructive atelectasis and secondary pneumonia. Diagnosis of primary bronchial adenoid cystic carcinoma on bronchial washing is not possible in many cases because these neoplasms located at submucosal region with often intact mucosa. Bronchoscope-guided fine-needle aspiration constitutes an excellent approach to submucosal lesion and provides sufficient material to establish a pathologic diagnosis. [4-6] FNA smears of ACC are cellular with a monomorphic population of small basaloid cells having high nuclear/cytoplasmic ratios, coarse chromatin, and small inconspicuous nucleoli. Acellular hyaline stroma in

globular or cylindromatous formations typically identified in aspirates sometime with attachment of basaloid cells. [7]

ACC of lung must be distinguished from metastatic lung tumor. TTF-1 is highly sensitive and specific marker to differentiate between primary ACC of lung from metastatic ACC from salivary gland. But it is not useful to differentiate from metastatic thyroid cancer because it is expressed in follicular epithelial cells of the thyroid. [3,8]

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