Mucinous Cystadenoma of the Lung Presenting as Localised Bronchiectasis

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Abstract
Mucinous cystadenoma is a very rare pulmonary neoplasm. Here we report the case of a 59 year old woman who presented with clinical features of localized bronchiectasis, who on detailed evaluation was found to have this rare tumour.

INTRODUCTION
Mucinous cystadenoma is an uncommon pulmonary neoplasm arising from the bronchial mucous glands. It commonly manifests itself with signs and symptoms related to airway irritation and obstruction. Bronchoscopic biopsy is usually diagnostic and has a very good prognosis following surgical removal. It is a very rare tumor with only 6 cases being reported in the literature. Here we report a 59-year-old woman with mucinous cystadenoma of the lung, because of its rarity.

CASE REPORT
A 59-year-old woman presented to us with cough and hemoptysis of a week’s duration. She had been having repeated episodes of cough which was productive with purulent expectoration and hemoptysis for the past 8 years for which she had symptomatic treatment only. There was no history of tuberculosis or asthma and the family history was also non-contributory. On examination she was afebrile, finger clubbing was present and there was no lymphadenopathy. The vital signs were stable. The only positive findings in the examination of the chest was the presence of coarse, leathery early to mid inspiratory crackles in the infra axillary and infra scapular areas. With this, a clinical diagnosis of right lower lobe bronchiectasis was made and the patient was investigated to find out the aetiology. The routine blood investigations were within normal limits. Chest X-Ray PA view showed tram track lines and cystic spaces in the right lower zone with surrounding airspace consolidation. A high resolution CT chest was performed which showed localized, linear dilated bronchioles in the posterior basal segment of the right lower lobe, suggestive of tubular bronchiectasis. Fibreoptic bronchoscopy in the posterior basal segment of right lower lobe showed a mass lesion suggestive of mucinous cystadenoma of the lung. The patient was subjected to surgical excision of the lesion which was confirmed histopathologically. The patient recovered uneventfully and is doing well 12 months after surgery.

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Fig. 1: HRCT chest showing localized, linear dilated bronchioles in the posterior basal segment of the right lower lobe, suggestive of tubular bronchiectasis.

Fig. 2: Fibreoptic bronchoscopic appearance of the mass lesion in the posterior basal segment of the right lower lobe.
CT scan of the chest was done which showed localized, linear dilated bronchioles in the posterior basal segment of the right lower lobe, which was suggestive of tubular bronchiectasis (Fig. 1). A fibreoptic bronchoscopy was done which revealed the presence of a highly vascular, polypoid mass lesion arising from the posterior basal segment of the right lower lobe (Fig. 2). The surface of the mass was irregular, with intact mucosa. A bronchoscopic biopsy was attempted but it was inconclusive. An ultrasound scan of the abdomen was done which was normal. Because of the periodic recurrence of symptoms, the patient was given the option of surgical management. She underwent right lower lobectomy and the gross specimen showed a firm nodular mass with a slimy feel arising from the wall of the bronchus. Microscopy showed a neoplasm composed of columnar cells arranged in glandular and papillary patterns with several cystically dilated spaces lined by columnar mucous secreting cells with abundant eosinophilic material (Fig. 3). The pulmonary parenchyma showed changes consistent with bronchiectasis. These histopathological features were suggestive of pulmonary mucinous cystadenoma. So a final diagnosis of mucinous cystadenoma of the posterior basal segment of the right lower lobe with distal post obstructive bronchiectasis was made. The patient has been on regular follow-up ever since and a year after surgery she is totally symptom free and also appears normal on clinical examination. The follow-up CT scan of the chest is depicted in Fig. 4, which shows normal lung parenchyma.

**DISCUSSION**

Mucinous cystadenoma is an exceedingly rare pulmonary neoplasm. To our knowledge only 6 cases have been reported in literature.1,2,3,6 Mucinous cystadenoma is also known as bronchial cystadenoma and originates in the bronchial mucous glands. It is usually seen as an endobronchial mass with intact overlying epithelium. It is more commonly seen in women. Because it originates in the mucosa of the large airways, the presenting signs and symptoms are related to airway irritation and obstruction like cough, wheeze, stridor, hemoptysis and occasionally fever and weight loss. Radiology may help in diagnosis while bronchoscopy reveals masses within the airways, either sessile or polypoid in appearance.3 Bronchoscopic biopsy is usually adequate to make a diagnosis.4 The differential diagnosis include mucinous cystadenocarcinoma and mucinous cystic tumours of borderline malignancy. The absence of cytological atypia and immunohistochemical low expression of proliferation markers such as proliferating cell nuclear antigen (PCNA) MIB1 in mucinous cystadenoma help in differentiating it from the other two conditions.5 Treatment depends on the local extent of the tumour and the involvement of the lung distal to it. Wide local excision is the preferred therapy. With surgical resection, mucinous cystadenoma has a remarkably favourable prognosis.6

This case is being presented because of its rarity and in all probability is the first case of mucinous cystadenoma of the lung to be reported from India. It also highlights the importance of fibreoptic bronchoscopy in the diagnostic workup of localized bronchiectasis.

**REFERENCES**