CASE REPORT

INTRALOBAR PULMONARY SEQUESTRATION WITH A PATENT BRONCHUS; A RARE PRESENTATION

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A 25 years male working as labourer in Middle East presented with episodic chest pain and productive cough for last 10 years. There was polycystic lesion in left lower chest cavity having separate arterial supply from descending aorta on radiology. It was diagnosed as intralobar sequestration. Operative findings confirmed the presence of separate blood supply from descending aorta and patent bronchial connection of intrapulmonary sequestration to the rest of the lung parenchyma. There are only few case reports in the literature describing this entity. Posterobasal segmentectomy was done with stapling of communicating bronchus.

Keywords: Intralobar; Pulmonary; Sequestration; Patent bronchus

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INTRODUCTION

Pulmonary sequestration is a congenital thoracic malformation consisting of non-functioning primitive lung tissue that does not communicate with tracheobronchial tree and has anomalous systemic blood supply. Intrapulmonary sequestration is covered by visceral pleura of normal lung with separate blood supply from aorta. Venous drainage is commonly to the left atrium via pulmonary veins and there is no communication to tracheobronchial tree.

Intralobar pulmonary sequestration usually presents in later childhood or adolescence with history of recurrent pneumonia. A chronic cough is common. Sometimes haemoptysis is also present. Physical examination sometimes is consistent with consolidation. Auscultation may reveal a bruit over affected area. Angiography, CECT and MRI are usually performed. Open/thoracoscopic lobectomy or segmentectomy are the procedures of choice.

CASE REPORT

A 25 years male, non-smoker presented with haemoptysis, productive cough and left sided chest pain. He had recurrent attacks of foul-smelling greenish sputum for last four years and haemoptysis for last 2 years. Cough and sputum increase on leaning forward and lying on right side. Physical examination revealed decreased breath sounds on left lower chest and increase in vocal resonance.

CT scan showed a large polycystic lesion in the posteromedial portion of left lower chest cavity with separate blood supply. Previous CT findings were consistent with infective process in left lower lobe.

Posterolateral thoracotomy confirmed the clinical diagnosis of extralobar pulmonary sequestration with separate arterial supply from descending aorta (Figure-1)

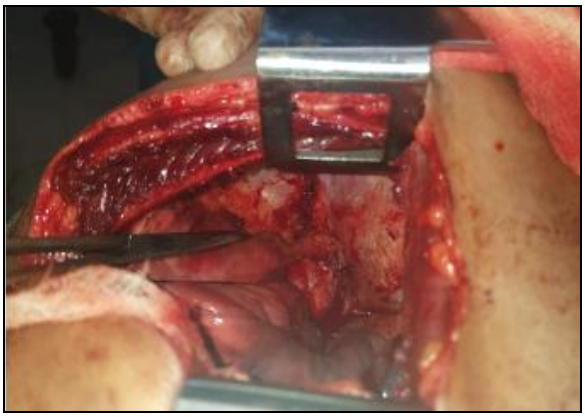

Figure-1: Blood supply from descending aorta

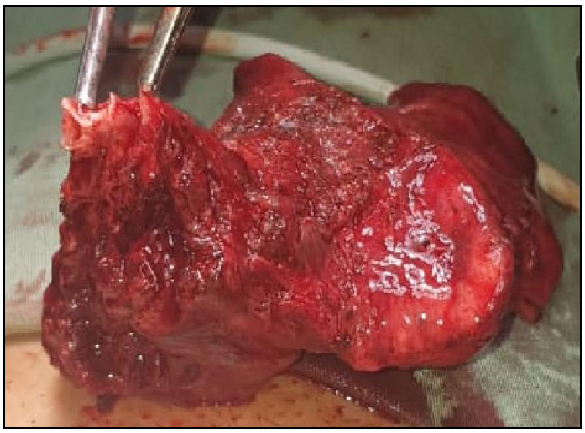

Figure-2: Patent bronchus communicating with rest of the tracheobronchial tree

Preoperatively a patent bronchus was identified communication with rest of the bronchial tree

(Figure-2). Intra pulmonary sequestration with communicating bronchus and separate arterial supply from aorta involving posterior basal left lower lobe was confirmed. Posterobasal segmentectomy was done with stapling of communicating bronchus.

DISCUSSION

Pulmonary sequestration, a congenital anomaly[1,2], presents as silent anomaly or with recurrent infections and divided in two types intralobar and extralobar, depending upon the presence or absence of visceral pleura which separate it from the normal lung tissue. Intralobar sequestration is more common.[3] Blood supply is usually from lower thoracic aorta[4] and drainage is through pulmonary veins. Medial and posterior basal segments of the left lower lobe are more frequently involved.[3,5] Contrast CT of thorax delineate the aberrant arterial supply and venous drainage.[6] Usually it is treated surgically by lobar resection through posterolateral thoracotomy but newer conservative techniques involve sublobar resection, minimally Invasive VATS and transcatheter embolization.[7]

This case shows a variation in the usual anatomy of pulmonary sequestration. Usually it is not connected to tracheobronchial tree but in our case, there is a patent connection between sequestration and rest of the tracheobronchial tree. Few cases are reported in literature where there is connection between sequestration and foregut.

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Patient consent was taken and ethical committee approval was taken too.

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