Case 8584

Broncho-oesophageal fistula due to bronchogenic carcinoma

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Section: Chest imaging
Case Type: Clinical Cases
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Patient: 81 years, male

Clinical History:

An 81 year old man presented with dyspnoea, dysphagia and stridor like symptoms. He had a previous history of Non small cell lung carcinoma in the right lower lobe with mediastinal lymphadenopathy and was treated with palliative chemotherapy. His other medical history included sternotomy and coronary artery bypass graft.

Imaging Findings:

Following presentation with above symptoms, the patient underwent chest radiography and CT scan. Chest radiograph revealed a right mid zone consolidation. Subsequent CT demonstrated consolidation in the right upper lobe. The right lower lobe mass was stable. There was minimal smooth thickening of left parietal pleura which was thought to be related to previous coronary artery bypass surgery and it also remained unchanged. The oesophagus was bulky. Soft tissue windows showed a bulky oesophagus with soft tissue thickening around the carina inseparable from the previously enlarged subcarinal node. There were tiny pockets of gas tracking towards the right main bronchus suggestive of fistulation.

To confirm this, the patient underwent a water soluble contrast swallow examination to assess possible fistulation. The contrast study confirmed a fistulous communication between the right main bronchus and oesophagus with the contrast spilling in to the bronchi. An oesophageal stent insertion was planned but unfortunately his condition rapidly deteriorated resulting in death.

Discussion:

Broncho-oesophageal fistula in adulthood is rare and usually acquired. The causes are variable including oesophageal malignancy and iatrogenic (radiation). Foreign body ingestion, trauma and infections like tuberculosis and histoplasmosis are some of the benign causes.

There is little in the literature on bronchogenic carcinoma as a cause of broncho-oesophageal fistula. We present an unusual case of fistulous communication between bronchus and oesophagus caused by lung cancer and stress the role of radiology in establishing the diagnosis.

The fistulous communication in our case was caused by the erosion of the necrotic metastatic malignant subcarinal node into the oesophagus and right main bronchus resulting in bronchoesophageal fistula.

Differential Diagnosis List: Broncho-oesophageal fistula due to bronchogenic carcinoma

Final Diagnosis: Broncho-oesophageal fistula due to bronchogenic carcinoma
References:

Description: Chest radiograph shows right mid zone consolidation

Origin:
**Figure 2**

Description: Chest CT at mediastinal windowing shows bulky oesophagus with soft tissue thickening around the carina and oesophagus and tiny pockets of gas tracking towards the right main bronchus.

Origin:
Description: Chest CT at lung windowing shows consolidation in the right upper lobe. Origin:
Description: Water soluble contrast swallow demonstrates stricture of the oesophagus with fistulous communication into the right main bronchus. Origin: