ENDOSCOPIC TREATMENT OF A BRONCHOPLEURAL FISTULA – CASE REPORT

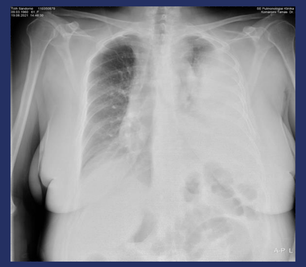
INTRODUCTION

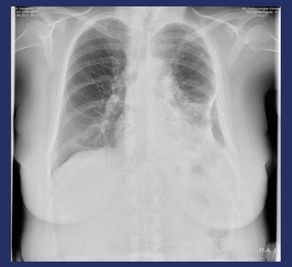
Bronchopleural fistulas occur when there is an opening on the visceral pleura, therefore the airways and the pleural space communicate. Causes include benign conditions (empyema, suture insufficiency after surgery etc.) or as a consequence of cancer. Treatment options may be limited due to the poor general health condition of the patients. If surgery cannot be performed we have a number of endoscopic treatment options (endobronchial valves, tissue glues, etc.).

PATIENT HISTORY

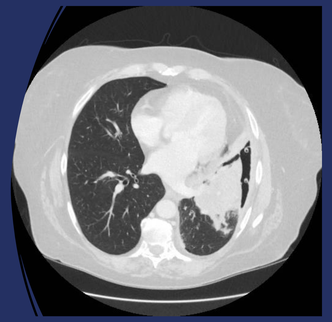
A 61 year old female patient was admitted to our Department for treatment of a pleural fluid accumulation. Thoracocentesis revealed pleural empyema. We performed chest tube insertion, followed by irrigation of the chest and broad spectrum antibiotic treatment. Continuous air leak was observed. Chest CT revealed a bronchopleural fistula on the outer surface of the lingula, contrast enhanced imaging also described a possibly malignant infiltrative disease concomitantly.

We consulted thoracic surgeons, due to the tumorous infiltration they feared that suture insufficiency might occur as a consequence of surgery, therefore recommended other treatment modalities

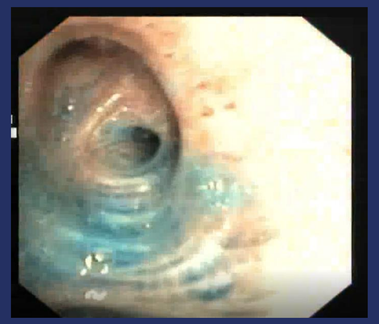




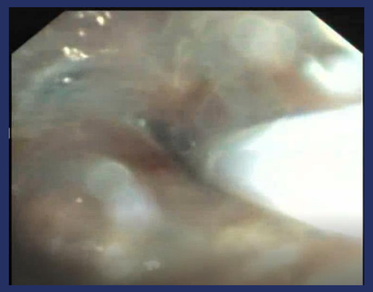
Chest X-ray at admission (left side) and after drainage of pleural cavity. The left lung did not expand fully, there is an air filled loculation on the left side.

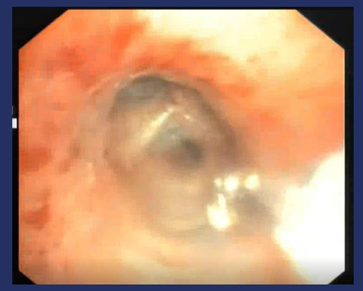


Chest CT showed infiltration and a bronchopleural fistula.

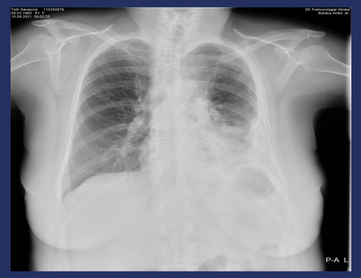


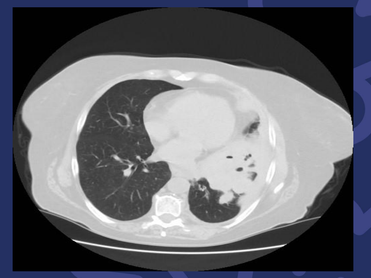
We performed retrograde bronchography with methylene blue, which showed that the fistula communicates with the lingula.





First we used a lavage catheter to fill the lingular segments with thrombin glue (Purastat tissue glue (3-D Matrix, Tokyo, Japan), after that we blocked the segments with absorbable hemostat (Ethicon, Cincinatti, Ohio, USA)





X-ray on the day after the intervention showed no air in the pleural cavity. A chest CT scan was performed a month after the intervention, which also showed no recurrence.

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