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Pleural-pancreatic fistula: a rare cause of pleural effusion

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INTRODUCTION

Pleural effusions result from excessive accumulation of fluid in the pleural space and may be consequence of numerous pathologies. Pancreatic pleuropulmonary fistula is an uncommon etiology that should be considered when there is a history of pancreatitis or pancreatic trauma.

CASE DESCRIPTION

♂, 58 years old

Previous history:
- carcinoma of the right retromalar trigone
- former smoker
- alcoholic

Symptoms:
- dyspnea for minor exertion
- nonproductive cough
- pleuritic pain on the right shoulder blade
- weight loss of 4 kg in 4 months

On examination: afebrile, tachycardic

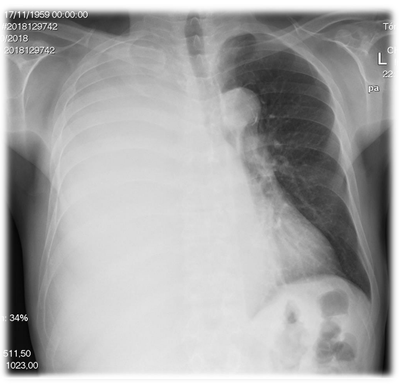

Figure 1 - Chest radiography in the Emergency Department

- Laboratory evaluation: leukocytosis, neutrophilia and C reactive protein of 24mg/dL

- Thoracic radiography: showed homogeneous hypotransparency occupying the entire right lung field (Figure 1)

Thoraco-abdomino-pelvic CT: a pancreas tail heterogeneity was highlighted, associated with a 35mm collection (Figure 3)

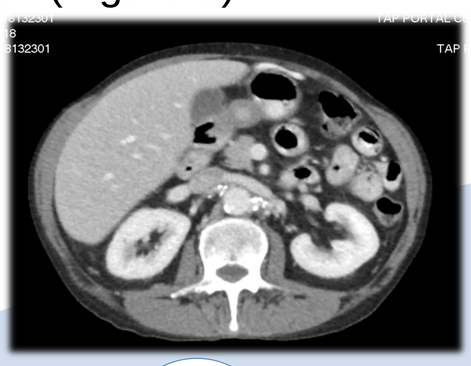

Figure 3 - Thoraco-abdomino-pelvic CT

- Diagnostic and therapeutic thoracentesis drainage of 2000 ml of serohematic fluid, which revealed to be an exudate with predominance of polymorphonuclear cells and amylase of 2723U/l

- Bateriological and mycobacteriological studies: negative

- Pathologic anatomy of pleural fluid: negative for neoplastic cells

- Biopsy of pleural thickening: pleural fragments with chronic inflammatory process

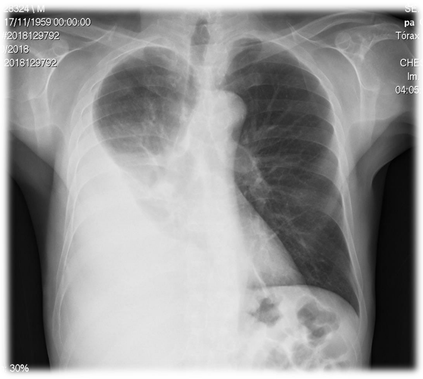

Figure 2 - Chest radiography in the Emergency Department after Thoracocentesis

Magnetic Resonance Cholangiopan-creatography: revealed a pseudocyst from the tail of the pancreas to the left subdiaphragmatic region, passing through the aorta and ending in the right subpleural region.

DISCUSSION

Pleural effusions can be the consequence of numerous pathologies. In this patient, one of the most probable causes would be neoplastic; other causes would be a parapneumonic process/empyema or pulmonary embolism. Exudates are usually caused by infections, tumors, inflammation, involvement of lymphatic drainage or drugs. The predominance of PMN may suggest parapneumonic effusion, pulmonary embolism or abdominal etiology, whereas the presence of increased amylase suggests tumor, esophageal rupture, pancreatic disease or tuberculosis. The imaging studies confirmed the pancreatic etiology, in this case a pseudocyst on the tail of the pancreas with a pleuro-pancreatic fistulous path.

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