

PANCREATICOPLURAL FISTULA

Fístula pancreaticopleural

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CASE REPORT

Woman of 52 years smoker and heavy alcoholic drinker looked for medical assistance on emergency department for dyspnea since a month ago, with sharp increase in the last two weeks. She also reported appetite loss, weight loss, dependent chest pain and fever. She denied abdominal complaints. Physical examination verified very thin person, pale mucous membranes (2 + / 4 +), febrile and with mild tachypnea. In lung auscultation was observed vesicular murmur in the lower two-thirds of the right hemithorax and left lower third, with dullness to percussion. The abdomen was flat with no palpable masses or visceromegaly and painless on palpation.

The laboratory tests showed normocytic and normochromic anemia, liver and renal profile unchanged. Chest radiography showed bilateral pleural effusion, most importantly the right. Was performed pleural biopsy and thoracentesis. The analysis revealed cloudy pleural fluid, pH = 8, density 1015, with a predominance of polymorphonuclear cytology, bacteriology negative, absence of fungi and negative for malignancy. Relationship was identified pleural protein / serum protein of 0.55, compared pleural LDH / serum LDH 7.0 and pleural LDH of 1463, as well as ADA and 6-amylase over 2000. Pleural biopsy showed nonspecific pleuritis. Chest tube placed to water seal. The patient developed fever. Was also performed screening for gynecological cancer, lung and metastatic esophageal fistula, all with negative results. Abdominal CT scan suggested chronic pancreatitis with pancreatic pseudocysts. The serum amylase was 2015.

The patient underwent total parenteral nutrition for two weeks, but remained with active fistula. Was decided to do a derivation with pancreatojejunal longitudinal anastomosis Roux-en-Y style with splenic preservation (Partington and Rochelle procedure). The operation was uneventful. The patient was discharged after the 9th postoperative day, under favorable conditions.

INTRODUCTION

Pancreaticopleural fistula is rare^{3,4,5,8}. Was first described in 1973 by Tombroff¹⁰. Is estimated to occur in 0.4% of patients with pancreatitis. It is related, in 99% of cases, as due to alcoholic cause^{5,11,14}. It may occur through two mechanisms: directly via the main pancreatic duct with the pleural cavity or, more often, through a pseudocyst^{7,8,9,15}. Produces massive and recurrent pleural effusions, usually on the left side associated to high content of amylase^{8,11}, with concomitant identification to high serum levels of this enzyme¹⁵. The chest radiograph shows pleural effusion^{7,8}. and ultrasound imaging of abdomen and thoracoabdominal computed tomography can visualize the pancreas with its changes and possible pseudocyst^{6,7,8}. Fistula can be also diagnosed by endoscopic retrograde cholangiopancreatography^{7,14} or magnetic resonance cholangiopancreatography^{14,15} and with less sensitivity by computed tomography^{4,14}. Conservative treatment consists of total parenteral nutrition, somatostatin, thoracentesis or chest tube drainage in water seal^{1,7,8,11,14,15}. Endoscopic treatment consists of placing implants inside Wirsung's duct and sphincterotomy^{1,4,7,14,15}. Surgical treatment consists of drainage with the preparation of pancreatic anastomosis with an intestinal segment¹⁴ and / or distal pancreatectomy alone^{1,2,14,15}.

DISCUSSION

Ali et al.¹, in a recent review of 52 published cases and Uchiyama et al.¹¹ in a review of 113 cases in Japan reported dyspnea, abdominal pain, cough and chest pain as the main symptoms in patients with fistula. Pleural effusions with high-amylase can also be found in acute pancreatitis, gynecological cancer, lung, metastatic tumors, pneumonia, esophageal perforation, lymphoma, leukemia and pulmonary tuberculosis⁴.

Abdominal CT, despite its low sensitivity, was initially applied in order to reveal features of chronic pancreatitis, and pancreatic calcification and pseudocysts¹. However, some authors argue that ERCP should be performed initially¹⁵. Some series show¹ confirmation of the diagnosis in 78% of cases with its use. Should be taken into account, however, the fact of not being able to demonstrate fistulas in locations where the breakpoint is in distal duct, the CT scan should be the method of choice in these cases¹¹. Magnetic resonance cholangiopancreatography was effective for the diagnosis of fistula in several studies^{1,12,13}. It is non-invasive method, without contrast and free of infectious risks^{1,12,13}. The abdominal ultrasound is not considered effective for diagnosis due to its low sensitivity, since the gaseous intestinal distension and the presence of air in the stomach affect the identification of fistulas^{1,4,7,11,13}.

There are no guidelines for the treatment of fistula based on randomized clinical trials. The management is grounded in case reports and case series^{1,11}. Initially, the clinical treatment is carried out for two to three weeks consisting of total parenteral nutrition, somatostatin analogues associated with chest tube drainage and water-sealed^{1,7,11,13}. It should be remembered that the reduction in pancreatic secretion is less important than the restoration of anatomic continuity of the pancreatic duct^{1,9}. The effectiveness of conservative treatment ranges from 30 to 60% in some series¹ and 0% to 33% in others⁴. Recently, endoscopic treatment has gained ground that consists of balloon dilatation and prosthesis intraductal^{1,4,7,11,13}. The stent may allow for drainage of pancreatic secretion into the duodenum and has reported success rates up to 25% with endoscopic treatment.

The failure of conservative treatment indicates surgical treatment. The type of procedure is determined in accordance with the portion¹² and pancreatic affected by the anatomy of the pancreatic duct. Complete rupture of the pancreatic duct and the presence of large volume pseudocysts

are clear indications for surgical treatment¹. A distal pancreatectomy is part of the procedure with the highest number of reports in the literature^{1,11}. In patients with pseudocysts, it is necessary to perform internal drainage with pancreatojejunostomy^{1,9,11}.

CONCLUSION

Pancreaticopleural fistula is rare condition that should be suspected especially in patients with a history of pancreatitis or alcoholism abuse with respiratory symptoms or pleural effusion.

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