

Distal Pancreatectomy with Splenectomy in Pancreatic Tail Cyst: Case Report

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ABSTRACT

Pancreatic cyst is a pathological condition characterized by the presence of a fluid-filled cavity or sac within the pancreatic tissue. It can arise from various etiologies, including chronic pancreatitis, acute pancreatitis, pancreatic duct obstruction, and benign or malignant pancreatic lesions.

Histopathological classification of pancreatic cysts reveals distinct subtypes such as pseudopapillary cysts, serous cysts, mucinous cysts, solid cysts, and intraductal papillary mucinous neoplasms, each exhibiting unique characteristics that influence clinical management. Diagnosis of pancreatic cysts relies on a combination of imaging modalities including ultrasound, computed tomography, magnetic resonance imaging, as well as blood tests and, in selected cases, biopsy.

Treatment of pancreatic cysts depends on several factors, including size, location, and associated symptoms. Small asymptomatic cysts are often managed with regular surveillance, while symptomatic, large, or worrisome cysts may necessitate more aggressive interventions such as percutaneous drainage or surgical intervention. Targeted pharmacological therapy may be considered in specific cases.

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INTRODUCTION

A pancreatic cyst refers to an anatomical lesion characterized by the presence of a fluid-filled cavity or sac within the pancreas. This cyst originates due to an abnormal accumulation of fluid within the pancreatic tissue, resulting from various conditions and pathologic processes.¹

The pancreas is a gland located in the abdomen that performs vital functions in digestion and nutrient metabolism. When a cyst develops in the pancreas, it may manifest as an encapsulated fluid-containing structure surrounded by healthy or inflamed pancreatic tissue.²

Pancreatic cysts can have several causes, the most common being chronic pancreatitis, acute pancreatitis, obstruction of the pancreatic ducts, the presence of benign or malignant lesions in the pancreas, or they can even be congenital. These triggers can alter the normal function of the pancreas and lead to cyst formation.³

In histopathological terms, pancreatic cysts can be classified into different types, such as pseudopapillary cysts, serous

cysts, mucinous cysts, solid cysts and mucinous papillary intraductal intraductal cysts, among others. Each type of cyst has distinct histological and clinical features and requires a specific diagnostic and treatment approach.^{4,5}

The diagnosis of a pancreatic cyst is made by a combination of imaging methods, such as ultrasound, computed tomography (CT) or magnetic resonance imaging (MRI), which allow visualization of the presence, location, size and characteristics of the cyst. In addition, blood tests can be performed to evaluate pancreatic enzyme levels and tumor markers, and a biopsy can be performed if a malignant lesion is suspected.^{6,7}

Treatment of pancreatic cysts depends on several factors, such as the type of cyst, size, location and associated symptoms. In many cases, small, asymptomatic cysts can be closely monitored without active intervention. However, cysts that are symptomatic, large in size or have worrisome features may require percutaneous drainage, surgical removal or even targeted drug therapy.^{8,9}

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It is important to note that the management of pancreatic cysts should be performed by physicians specialized in gastroenterology, pancreatic surgery or hepatobiliary surgery, who will evaluate each case individually and determine the optimal approach for the diagnosis, treatment and follow-up of these particular cysts.^{10,11}

Objective: to know the importance of distinguishing pancreatic cysts with malignant potential, since their resection is key to avoid tumor progression.

CASE PRESENTATION

46-year-old female, diabetic for 15 years treated with insulin nph 30-0-20 ui, who began her current condition on 10/20/21 with pain in the epigastrium radiating to the right hypochondrium, eva 8/10, associated with nausea and vomiting of gastric contents initially, which progressed after 2 days to bilious vomiting, which caused a decrease in tolerance to oral intake, so he decided to go to the emergency room of our unit on 01/11/21 where the examination revealed a 10x12cm ovoid mass in the epigastrium and left hypochondrium, painful on palpation, so it was decided to take an abdominal ultrasound on 01/11/21 showing liver 16.74cm length, common bile duct 0.7cm, portal 1.48cm, gallbladder 5.45x2x3.5 cm and wall 0.42cm with rounded images of 1cm, pancreas not assessable, epigastrium and left hypochondrium with ovoid occupational image of thick wall and thick avascular septa of heterogeneous content that contacts the hilar border of the spleen, measuring 11.6x11.8x13.5cm with volume 974.46ml, and spleen 11.8x6.8cm.

Subsequently it was decided to perform a simple and contrasted abdominopelvic CT on 10/11/21 finding a 10mm gallbladder, pancreas with a cystic tumor lesion with septa in its interior measuring 120x145mm, liquid density and blood inside. Fig 1.



Abdominal tomography.

Therefore, it was decided to protocolize for surgical treatment. a preoperative assessment was performed on 10/11/21, granting asa ii/vi, goldman 3 class 1, lee 1 class ii, gupta 0.1% cv risk, ariscat 31 intermediate pulmonary, caprini 4 moderate to thrombosis.

Results: it was decided to go to the operating room on 11/12/21 finding a pancreatic cyst of 20x20cm with cloudy

content strongly adhered to splenic vessels, reaching the neck of the pancreas, it was decided to perform a distal pancreatectomy + splenectomy. Fig.2

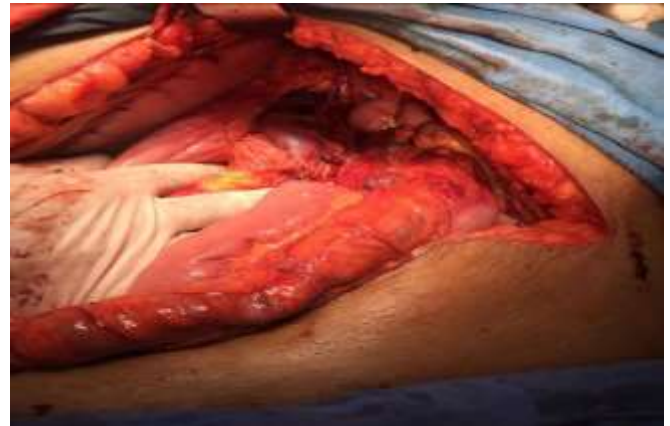


Fig.2 Abdominal cavity after cyst removal.

Incidents included lesion of the splenic artery at its origin in the celiac trunk due to firm adhesions, obtaining a final bleeding of 1200cc, for which 2 globular packages were later transfused. It was decided to start an oral diet on 11/16/21, tolerating it.

Patient with adequate evolution so it was decided to discharge the same day.

CONCLUSION

In conclusion, pancreatic cyst is a pathologic entity characterized by the formation of a fluid-filled cavity or sac within the tissue of the pancreas. This disorder can be caused by a variety of conditions, including chronic pancreatitis, acute pancreatitis, obstruction of the pancreatic ducts, and the presence of benign or malignant lesions in the pancreas. Patients with the following risk factors have an increased likelihood of pancreatic neoplasia: lesion size >3 cm: a threefold increased risk of malignancy. presence of mural nodules: an eightfold increased risk of malignancy.^{12,13}

Histopathological classification of pancreatic cysts reveals different subtypes, such as pseudopapillary, serous, mucinous, solid and intraductal papillary mucinous cysts, each with distinctive features that influence their clinical management. The diagnosis of pancreatic cysts is based on a combination of imaging studies, such as ultrasound, computed tomography and magnetic resonance imaging, in addition to blood tests and, in some cases, biopsy.¹³

The treatment of pancreatic cysts depends on several factors, such as size, location and associated symptoms. Small, asymptomatic cysts are often managed with regular observation, whereas symptomatic, large cysts or cysts with worrisome features may require more aggressive interventions, such as percutaneous drainage or surgery. Targeted drug therapy may be considered in selected cases.¹³ Evaluation and management by specialists in gastroenterology, pancreatic or hepatobiliary surgery, who will make individualized decisions about the diagnosis,

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treatment and follow-up of pancreatic cysts, is essential. Adequate surveillance is essential to detect possible complications or changes in the cyst over time.¹⁴

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