CASE REPORT

TJG
The Turkish Journal of Gastroenterology

# Large mucinous adenoma of pancreas presenting with recurrent pancreatitis

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*Cystic pancreatic tumors are an unfamiliar and rare entity even after the advent of modern abdominal imaging. Mucinous pancreatic tumors presenting with features of pancreatitis is a rare phenomenon moreover it creates a diagnostic dilemma and can lead to mismanagement. We report here such a case of mucinous cyst adenoma presented as recurrent pancreatitis and mimicking as a pancreatic pseudocyst. The correct diagnosis was made only on CT scan and was successfully treated by surgical excision in the form of distal pancreatectomy with splenectomy.*

**Key words:** Mucinous cyst adenoma, recurrent pancreatitis, distal pancreatectomy with splenectomy

## Rekürren pankreatit ile prezente olan pankreasın büyük müsinöz adenomu

*Abdomenin görüntülenmesinde modern gelişmelere rağmen kistik pankreas tümörleri alışık olunmayan nadir görülen antitelerdir. Müsinöz pankreatik tümörlerin pankreatit tablosu ile prezente olması nadir görülen bir durumdur ve tanı karışıklığına ve tedavinin yanlış planlanmasına neden olabilir. Burada rekürren pankreatit ile prezente olan ve pankreas pseudokistini taklit eden müsinöz kistadenomlu bir olgu sunulmuştur. Doğru tanı ancak bilgisayarlı tomografi incelemesi ile konulabilmiş ve vaka distal pankreatektomi ve splenektomi uygulanarak başarı ile tedavi edilmiştir.*

**Anahtar kelimeler:** Müsinöz kistik adenom, rekürren pankreatit, distal pankreatektomi ve splenektomi

## INTRODUCTION

Cystic pancreatic tumors remained an unfamiliar entity until the advent of modern abdominal imaging. Even in the present scenario, when their diagnosis has become much easier and simpler, they are still very uncommon and account for only 10% of cystic lesions of the pancreas and <1% of pancreatic malignancies. The most common presenting symptom is vague abdominal pain, but they rarely present with features of pancreatitis, creating a diagnostic dilemma with pseudocyst of the pancreas (1,2).

It is important to distinguish these cystic neoplasms from pseudocyst, as they have a malignant potential and require early surgical excision. The correct diagnosis of cystic neoplasms becomes more difficult when they present with features of pancreatitis. We report here such a case of mucinous cystadenoma presented as recurrent pancreatitis and mimicking a pancreatic pseudocyst.

## CASE REPORT

A 45-year-old female presented to us with features of acute abdomen with a significant medical history of similar recurrent attacks in the previous one year. The patient had complaints of several episodes of dull aching epigastric pain radiating to the back, but this severe episode caused her presentation to our department. Her routine investi-

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**Manuscript received:** 04.11.2009 **Accepted:** 02.06.2010

*Turk J Gastroenterol 2011; 22 (1): 98-100*
*doi: 10.4318/tjg.2011.0166*

gations were within normal limits except for elevated serum amylase level. A diagnosis of large pseudopancreatic cyst with recurrent pancreatitis was made on ultrasonographic findings, and the patient was managed conservatively. Six weeks later, abdominal computed tomography (CT) revealed a large mass with multiple septae in the body and tail of the pancreas, suggestive of mucinous tumor (Figure 1). On exploration, a thick-walled cyst was found in the body and tail of the pancreas, adherent to surrounding structures including the splenic vessels (Figure 2). Distal pancreatectomy with splenectomy (Figure 3) was performed with proper ligation of the main pancreatic duct, and the remaining stump was folded on itself and closed in two layers with placement of an omental patch over it. The postoperative period was uneventful. The histopathology report showed a large mucin-filled thick-walled cyst of the pancreas with multiple dilated cystic spaces lined by tall columnar single-layered epithelial cells with no papillae and normal nuclear cytoplasmic ratio, highly suggestive of mucinous cystadenoma of the pancreas.

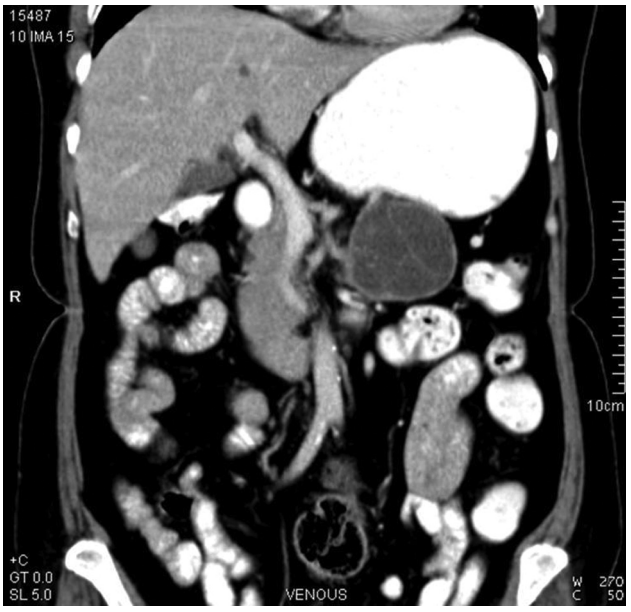


**Figure 1.** CT abdomen revealed a 10 X 10 cm, well encapsulated, hypoattenuated mass with multiple septae in the body and tail of pancreas suggestive of mucinous tumour.

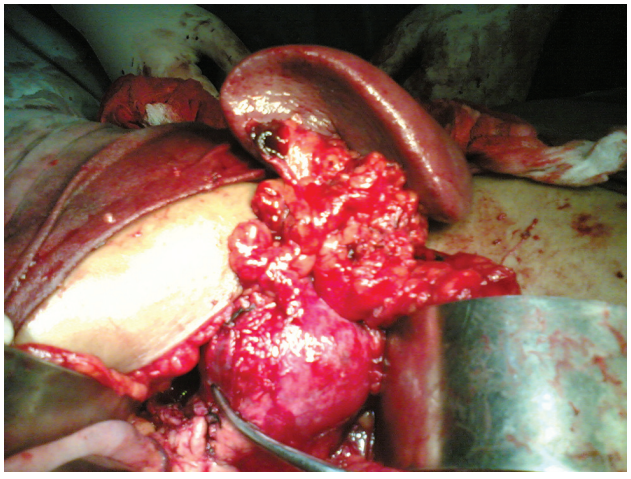

**Figure 2.** Thick walled cyst in the body and tail of pancreas, adherent to surrounding structures including splenic vessels.

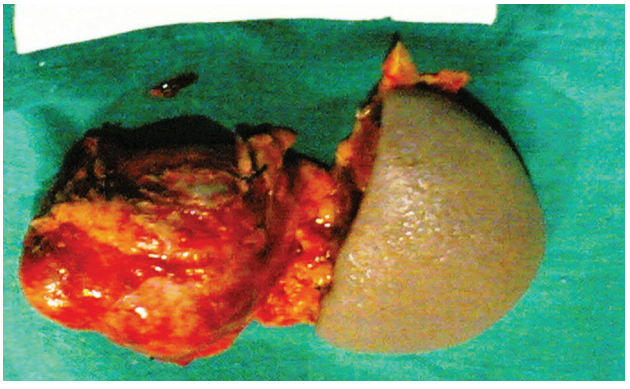

**Figure 3.** Operated specimen of distal pancreatectomy with splenectomy.

## DISCUSSION

Pseudocyst is the most common cystic lesion of the pancreas, and it occurs almost always secondary to pancreatitis. Cystic pancreatic tumors are the other major cause accounting for about 10-15% of pancreatic cysts and less than 1% of pancreatic neoplasms (3). The World Health Organization [WHO] classified cystic pancreatic neoplasms into three main categories as: mucinous variety (45%), serous variety (16%) and intraductal papillary mucinous neoplasm (IPMNs) (32%) (4).

As evident from the above, mucinous cystic neoplasms (MCNs) are the most common cystic tumor of the pancreas, and mucinous cystadenoma is the most common (43-45%) benign epithelial neoplasm, primarily affecting middle-aged women, with lesions occurring predominantly in the body and tail of the pancreas, in accordance with the clinical and demographic features seen in the present case. They tend to be slow-growing and frequently attain a considerable size at the time of presentation. They typically present with a vague abdominal discomfort along with a palpable mass with no antecedent history of clinically apparent acute or chronic pancreatitis (5). In treating this class of tumor, differentiation between a pseudocyst and neoplasm is clinically very important,

keeping in mind its malignant potential. Pseudocysts are often accompanied with an episode of clinically apparent acute or chronic pancreatitis, whereas cystic neoplasms rarely arise in the setting of pancreatitis except in mucinous ductal ectasia (3). Elevated enzyme levels are noted in approximately 75% of patients with pancreatic pseudocyst, whereas enzymes fall within normal limits in the majority of pancreatic neoplasms (6,7).

Our patient was managed initially under the impression of recurrent pancreatitis with pseudocyst due to the typical nature of pain, recurrent history, elevated enzymes, and ultrasonographic findings. It was only on CT scan findings that the correct diagnosis of mucinous tumor was made. The best treatment modality available to date is surgical excision, and even a 100% five-year survival rate has been reported in the literature (8). Similarly, we also performed surgical excision in the form of distal pancreatectomy with splenectomy but it was done only after resolution of the acute phase.

In conclusion, all pancreatic cysts presenting with recurrent pancreatitis should not be mistaken for pseudocysts; rather, cystic neoplasms of the pancreas should be considered in the differential diagnosis. MCNs, being potentially malignant, require surgical excision. Newer imaging modalities, especially CT, can be of immense help in establishing the correct diagnosis of uncommon entities mimicking common presentations.

## REFERENCES


1. Warshaw AL, Rutledge PL. Cystic tumors mistaken for pancreatic pseudocyst. Ann Surg 1987; 205: 393.
2. Lumsden A, Bradley EL 3rd. Pseudocyst or cystic neoplasms? Differential diagnosis and initial management of cystic pancreatic lesions. Hepatogastroenterology 1989; 36: 462-6.
3. Fernandez-del Castillo C, Warshaw AL. Cystic tumors of the pancreas. Surg Clin North Am 1995; 75: 1001-16.
4. Kloppel G, Luttges J. WHO-classification 2000: exocrine pancreatic tumors. Verh Dtsch Ges Pathol 2001; 85: 219-28.
5. Lee KY, Woo YM, Lee KU. Pancreatic cystic neoplasms; a clinical review. Korean J Gastroenterology 1995; 27: 110.
6. Warshaw Al, Rattner DW. Timing of surgical drainage for pancreatic pseudocyst. Clinical and chemical criteria. Ann Surg 1985; 202: 720-4.
7. Lee YC, Song SY, Chung JB, et al. Nine cases of mucinous cystic neoplasms of the pancreas. Korean J Gastroenterol 1994; 26: 728.
8. Eloubeidi MA, Hawes RH. Mucinous tumors of the exocrine pancreas. Cancer Control 2000; 7: 445-51.