

Case Report

Pancreatic serous cystadenoma case report of conservative approach

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ABSTRACT

There are multiples pancreatic tumors, some of them being benign some being malignant, some more frequent than others, such as pancreatic pseudocyst and serous cystic neoplasm, in this case it's about the last one which is the most common cystic neoplasm of the pancreas about 30%, the initial approach to this type of tumors is either CT scan or MRI, which will show the honeycomb-like pattern, which is pathognomonic of this neoplasm, and the treatment options depend on the symptoms that produce.

Keywords: Serous cystic neoplasm, Asymptomatic, Conservative management

INTRODUCTION

Pancreatic cystic lesions have been classified in those without any malignant potential such as pancreatic pseudocysts and serous cystic neoplasms (SCNs) (which comprise 1-2% of pancreatic neoplasms and 10-29% of pancreatic cystic neoplasms) and Others who are premalignant cysts such as mucinous cystic neoplasms (MCNs) and intraductal papillary mucinous neoplasms (IPMNs).¹ From all of them Serous cystadenomas are the most common type of cystic neoplasm of the pancreas and the natural history of its malignant potential differ significantly from that of other cystic neoplasms and the importance of this is because the treatment of which is vastly different. Serous cystadenocarcinomas are exceedingly rare, with estimates of malignant conversion of cystadenomas ranging between 1 and 3%.² Resection of serous cystadenoma should be considered when the lesion has a diameter >4 cm or develop symptomatology.³ The above is based because clinical

behavior of the neoplasm, when the symptoms appear and they do in one third to one half of cases they usually do it because their relation with synchronous or metachronous distant metastases to the liver, peritoneum, or lymph nodes. The symptoms include abdominal discomfort and pain (the most frequently), fullness, fatigue, self-recognition of a mass, obstructive jaundice due to obstruction of the biliary tree (may lead to acute cholangitis) and pancreatic duct obstruction causing pancreatic exocrine insufficiency and recurrent pancreatitis.^{2,5} On the other hand all of the cases of metastatic serous cystadenocarcinoma (symptomatic or not) have had a diameter >4 cm.³ Serous cystadenomas can be a finding or an intentional diagnosis based on the clinic with the use of imaging studies such as computed tomography (CT), ultrasonography, and echo-endoscopy (EE). The CT image as a spongy mass with central calcification "at sunset" is pathognomonic but only appears in approximately 10% of patients. They play an important role in the treatment decision, respectability assessment and the safety of resection.⁵ Based on the

slow growth rate of these cysts and due to the small risk of malignancy (<3%) conservative management is recommended in asymptomatic cases with surveillance imaging in asymptomatic cases. When the surgical treatment is imminent the approach depends on the location and may include distal pancreatectomy with or without splenectomy, pancreatectomy, or Whipple procedure.⁶

CASE REPORT

A 45 years old female sent to the hepato-pancreatobiliary department of the northeast medical center #25 with a history of 2 years of evolution, the patient reported in a single and isolated episode of abdominal pain in the right flank which improve after pain medication was administer. At the time of medical interrogation, the patient mentioned the following medical history: Hypertension: of recent diagnosis, in treatment with losartan 50 mg every 24 hrs. Diabetes: of recent diagnosis, in treatment with metformin 850 mg every 24 hrs. surgery: C section 23 years before.

During the initial approach a ultrasound was performed, with the diagnostic suspicion of cholelithiasis, during the examen a pancreatic cyst was reported so in December 2022 magnetic resonance (MRI) was performed with the next findings, (Figure 1). Pancreas: at the level of the body, a lesion with a rounded morphology and lobulated edges, displaying cystic behavior in all sequences. Multiple fine septa are present, creating a multiloculated structure with smaller cysts. Additionally, a centrally hypointense nodular image is observed, possibly corresponding to fibrous tissue. The lesion exerts a mass effect, displacing the main pancreatic duct and the lesser curvature of the stomach without infiltration. It measures 4.5×4.4×4.5 cm with a volume of 46 cc.

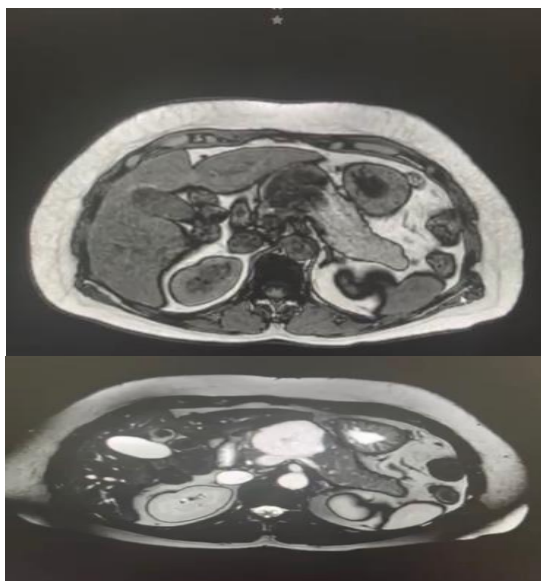


Figure 1: MRI.

In July 2023 an endoscopic ultrasound with biopsy taking was performed with the following findings, cystic lesion at the level of the pancreas head and neck, measuring 50.7×66.4 mm. It is multicystic in nature, displaying a honeycomb-like pattern with a 5.9 mm cystic lesion. Fine needle aspiration biopsy (FNAB) was performed, yielding a positive pathological result for pancreatic serous cystadenoma, classified as WHO Category II.

Conservative management was proposed with new lab test including tumoral markers and new CT scan in 6 months based on international guidelines

Lab test

July 2023: CA 19-9: 4.22, carcinoembryonic antigen <1.73, hemoglobin (Hb): 11.6 g/dL, hematocrit (Hct): 37.9%, platelets (Plt): 235,000 per μ L, white blood cells (Leucocytes): $9.4 \times 10^3/\mu$ L, prothrombin time (TP): 9.7 seconds, INR: 0.8, glucose (Gluc): 108 mg/dL, urea: 21.4 mg/dL, creatinine (Cr): 0.7 mg/dL, total bilirubin (Bt): 0.4 mg/dL, direct bilirubin (Bd): 0.1, mg/dL indirect bilirubin (Bi): 0.3 mg/dL, alanine aminotransferase (ALT or SGPT): 16 U/L, aspartate aminotransferase (AST or SGOT): 17 U/L, alkaline phosphatase (ALP): 65 U/L, dihydroxyacetone (DHL): 126 U/L

DISCUSSION

The current practice reported in systematized reviews for management of pancreatic serous cystadenomas is to observe asymptomatic lesions thereby avoiding the potential morbidity and mortality associated with a major surgery.^{7,8} the conservative approach that we used is well defined in international guidelines. However, since there is a possibility of malignant transformation into SCNs the appearance of new symptoms, the worsening of symptoms, or the rapid increase in size of the mass resection may be indicated.⁹ The preoperative differentiation between a benign serous cystadenoma and malignant serous cystadenocarcinoma could be difficult, that is why currently in addition to the clinical expression, radiologic, morphologic and laboratory tests help in distinguishing these lesions before resection and assessing their malignant potential. It is also essential to distinguish pseudocysts from serous lesions as it is essential for planning appropriate surgical management.⁶ Owing to malignant cystic tumors of the pancreas are very rare accounting for about 1% of all pancreatic malignancies, nowadays the current management of serous cystadenomas of the pancreas is essentially conservative.¹⁰ Therefore once diagnosed correctly through CT scans, MRI, EUS, serology and blood test studies, observation and routine reassessment of asymptomatic lesions is indicated thereby avoiding a major operation and resulting morbidity and mortality.⁸

CONCLUSION

The case report above shows the approach and medical decisions made in a case of asymptomatic serous cystic neoplasm, it's important to have in mind the differential diagnosis of pancreatic cystic neoplasm, and to assess the possibility of this neoplasm being malignant or premalignant, so that the correct approach it's made and the surgical therapy it's provided as soon as possible when needed or continue with expectant approach with CT scan or MRI periodically.

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Ethical approval: Not required

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