

Case Report

A rare case of pseudocyst in remnant pancreas after classical pancreaticoduodenectomy- treated by endoscopic drainage

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ABSTRACT

Pancreatic pseudocysts comprise more than 80 % of the cystic lesions of the pancreas. Here we report a 45-year-old female patient who developed a symptomatic pseudocyst in the remnant pancreas following classical pancreaticoduodenectomy for periampullary carcinoma. The pancreatic anastomosis was pancreaticogastrostomy-Dunking technique. She underwent endoscopic cystogastrostomy. Recurrence should always be ruled out before diagnosing pseudocyst in remnant pancreas following pancreaticoduodenectomy for malignant tumors.

Keywords: Pancreaticoduodenectomy, Pseudocysts, Remnant pancreas

INTRODUCTION

A pseudocyst is present as a cystic cavity bound to the pancreas by inflammatory tissue.¹ Typically, the wall of a pancreatic pseudocyst lacks an epithelial lining, and the cyst contains pancreatic juice or amylase-rich fluid.² The occurrence of a pseudocyst parallels that of pancreatitis and the etiology of pseudocyst resembles the causes of pancreatitis closely. Pseudocyst developing in the remnant pancreas after Pancreatoduodenectomy is very rare.

Pancreatoduodenectomy has been associated historically with high mortality and morbidity.³ Over the decades, perioperative mortality has been reduced from historic highs of 25% to a more recent 4%-5%.^{4,5}

CASE REPORT

A 45-year-old female patient presented in the outpatient department with 7 days history of abdominal pain, vomiting and loss of appetite. She was a known case of

hypertension and diabetes. She underwent classical pancreaticoduodenectomy for periampullary carcinoma 21 months back. The pancreatic anastomosis was pancreaticogastrostomy - Dunking technique. She had been on a regular follow up since then.

Physical examination was normal and the patient was not clinically jaundiced. Abdominal examination showed a bilateral subcostal incisional scar suggestive of previous laparotomy and there was a tender mass on palpation. Bowel sounds were present. Digital rectal examination was normal.

Routine blood investigations were normal. Serum amylase was mildly elevated (200U/L). CA19-9, CEA and liver function tests were within the normal limits.

Endoscopic examination revealed luminal narrowing of the remnant stomach due to extrinsic compression. Ultrasound abdomen showed a cystic lesion measuring 6 cm diameter in the remnant pancreas. Abdominal CT scan (Figure 1) showed an unilocular cystic lesion

measuring 6.5cmx6.5cm diameter in the remnant pancreas. The cyst was seen compressing the stomach and the diagnosis was post whipples pancreatic pseudo cyst. As the patient is having abdominal pain and vomiting it was decided to go for an invasive procedure rather than treating her conservatively. We performed a transmural endoscopic cystogastrostomy. Continuous drainage was achieved by using a 10F endoprosthesis, (Amsterdam stent) placed and left in situ for 4 weeks. The cyst fluid was sent for cytology and analysis which showed amylase rich fluid negative for malignancy. The procedure was well tolerated by the patient and there were no complications. The patient was discharged in 5 days' time. After treatment, the cyst reduced in size and the patient improved symptomatically and was taking solid food.



Figure 1: CT scan showing an unilocular cystic lesion in the remnant pancreas compressing the stomach.

She was readmitted 4 weeks after the procedure and a follow-up CT scan showed complete resolution. The stent was removed by grasping the intraluminal end with a polypectomy snare.

DISCUSSION

Pancreatic pseudocyst is the most common complication of acute and chronic pancreatitis.⁶ Symptomatic, persistent (>6 weeks), enlarging and complicated cysts are indications for interventional therapy.⁷ Intervention is recommended after an observation period of at least 6 weeks, as in many cases, the cyst resolve spontaneously during this time.^{8,9}

Pseudocyst developing in the remnant pancreas after whipple procedure is rare and had been reported once.¹⁰ Kojima et al reported a case of pseudo cyst in the remnant pancreas that developed 6 months after pancreaticoduodenectomy for mucin- hyper secreting tumor of pancreas.¹⁰ The pseudocyst vanished after 3 months of conservative management. In our case, the indication for pancreaticoduodenectomy was periampullary carcinoma and the patient had developed

pseudo cyst after 21 months of surgery. We have to intervene because the patient had severe pain abdomen with vomiting. The patient became asymptomatic after the procedure. The diagnosis of pseudocyst developing in the remnant pancreas after pancreaticoduodenectomy for malignant causes should be made with extreme caution after excluding recurrence. In this patient the cause of pseudocyst may be an attack of acute pancreatitis in the remnant pancreas. This may be the first case to be reported in the literature of a pseudocyst in remnant pancreas after dunking method of pancreaticogastrostomy (PG) anastomosis treated by endoscopic cystogastrostomy.

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