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References

1. Farnsworth N, Fagan SP, Berger DH, Awad SS. Child-Turcotte-Pugh versus MELD score as a predictor of outcome after elective and emergent surgery in cirrhotic patients. *Am J Surg*. 2004;**188**:580–3.
2. Mansour A, Watson W, Shayani V, Pickleman J. Abdominal operations in patients with cirrhosis: still a major surgical challenge. *Surgery*. 1997;**122**:730–5.
3. Falkensammer CE, Bonatti H, Falkensammer J, Aranda-Michel J, Dickson RC, Norman K, et al. Combined liver transplantation together with partial/total nephrectomy in patients with renal cell cancer and nonalcoholic steatohepatitis. *Transpl Int*. 2007;**20**:471–2.
4. Fayek S, Moore D, Bortecen KH, Yen H, Markmann JF, Olthoff KM, et al. Liver transplantation in the setting of extra-hepatic malignancy: two case reports. *Transplant Proc*. 2007;**39**:3512–4.
5. Saigal S, Norris S, Srinivasan P, Muiesan P, Rela M, Heaton N, et al. Successful outcome of orthotopic liver transplantation in patients with preexisting malignant states. *Liver Transpl*. 2001;**7**:11–5.
6. Ramdave S, Thomas GW, Berlangieri SU, Bolton DM, Davis I, Danguy HT et al. Clinical role of F-18 fluorodeoxyglucose positron emission tomography for detection and management of renal cell carcinoma. *J Urol*. 2001;**166**:825–30.

Pancreatic endotherapy in management of pancreato-pericardial fistula

Acute or chronic pancreatitis is associated with complications like pseudocyst, pancreatic necrosis, splenic vein thrombosis, pancreatic ascites and pleural effusion. Rarely do we find a patient presenting with cardiac tamponade and gross pericardial effusion due to a pancreaticopericardial fistula. Here we report a case of pancreaticopericardial fistula complicating alcoholic chronic pancreatitis, managed successfully by ERCP and stenting.Surgery, generally considered treatment of choice, was avoided.

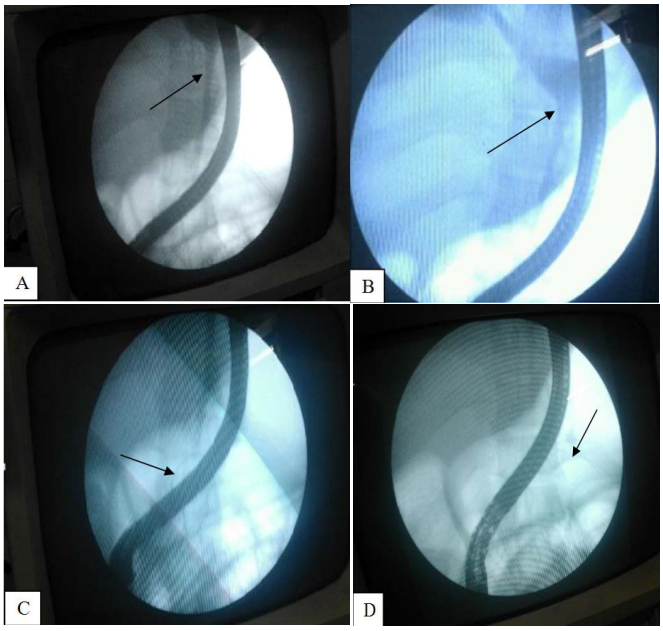

Figure: 1 Upper panel (A & B) shows pancreatopericardial fistula during ERCP. (C) Arrow shows guidewire in the pancreatic duct. (D) Arrow pointing towards pancreatic stent bridging the leak

Case report

A 38-year-old male patient presented to the emergency department with a 2-day history of severe breathlessness, chest pain and abdominal pain. His symptoms had gradually progressed over 1month with dyspnea progressing from NYHA class 1 to class 4.Hewas admitted in medical intensive care unit with hypotension, tachycardia, pallor, and tachypnea. Examination revealed muffled heart sounds, elevated JVP, normal respiratory examination. Abdominal examination revealed epigastric tenderness and shifting dullness. His hemoglobin was 9.8g/dL, TLC 15,000,serum creatinine 0.7mg/dL, BUN 8mg/dL, random sugar 84mg/dL, total protein 5.6g/dL and serum albumin 2.9g/dL and normal serum electrolytes. Serum bilirubin, SGPT, SGOT, prothrombin time with INR were normal. Bedside X-ray chest revealed water bottle shape heart which was suggestive of pericardial effusion. Urgent pericardiocentesis was performed and 1000mL fluid removed. The next day the patient again complained of dyspnea, CT thorax revealed gross pericardial effusion with collapse of right atrium and right ventricle. Patient was retapped and percutaneous drain left in situ. Ultrasound abdomen showed

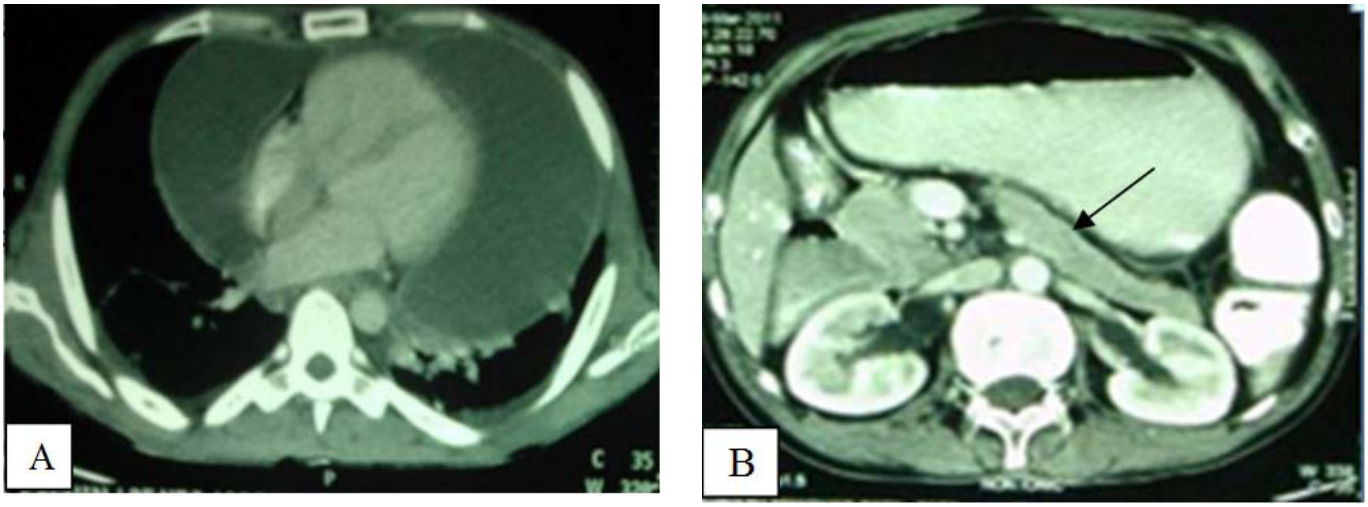

Figure 2: (A) CT scan showing pericardial effusion (B) Dilated pancreatic duct suggestive of chronic pancreatitis

mild to moderate ascites, heterogenous pancreas with prominent pancreatic duct. His past history revealed multiple episodes of severe abdominal pain for which he was admitted twice, and managed conservatively. The patient was consuming 1-2quarters of country liquor/day. Serum amylase, ascitic and pericardial fluid amylase levels assessment and CECT abdomen, were advised. Ascitic fluid analysis revealed low SAAG with high protein, and ascitic and pericardial fluid amylase were high (2500-3000IU/L).CECT abdomen revealed dilated MPD (main pancreatic duct), pseudocyst in head region extending upto epigastrium and communicating with collection under the dome of diaphragm and with pericardial effusion. ERCP was performed, pancreaticogram revealed pancreatic dye leaking into the posterior mediastinum and communicating with the pericardial cavity thus forming an effusion. Pancreatic sphincterotomy was done and 5Fr×12 cm stent was deployed bridging the leak. Post stenting the patient improved with gradual disappearance of ascites and pericardial effusion with no further tapping required. The patient was subsequently discharged and stent removed after 2months during which repeat pancreatogram was performed which showed no leak. Patient is in our follow up and is doing well.

Discussion

Pancreatic leak into the serosal cavity resulting in pleural effusion and ascites occurs in 3-5% of patients with chronic pancreatitis and 6-14% of patients with pancreatic pseudocyst[1].Postulated mechanisms in chronic pancreatitis are either due to pseudocyst communication with the serosal cavity or due to duct disruption. Pancreaticopleural and pancreaticopericardial fistulas are considered rare complications of chronic pancreatitis. The mechanism of pericardial effusion is not clear. Earlier it was believed to be due to pancreatic enzyme-induced chemical pericarditis and pleurisy. Cameron proposed that anterior duct disruption produces effusion and ascites whilst posterior duct dispurtion communicates retroperitoneally with the posterior mediastinum to produce pericardial effusion.[2]

The presenting symptoms can be variable depending on the location and size of the communication. Thus, patients may present with dyspnea, chest pain, palpitations, or cardiogenic shock. Our patient presented with progressive dyspnea and chest pain with intermittent abdominal pain.It was only when his pericardial effusion was analysed and found to have elevated amylase concentration, pancreatic origin was suspected.

Initial pericardial tapping, antibiotics, NJ feeding and octreotide followed by surgery in the form of lateral pancreaticojejunostomy has been considered the appropriate protocol.[3] Another report described an adult patient who underwent an elective Roux-en-Y pancreatico-jejunostomy without complication and remained symptom-free two years after the surgery.[4] In our case we have successfully managed the case with pancreatic endotherapy. To the best of our knowledge there are no published reports of successful endotherapy in pancreaticopericardial fistula. Even in recent case report pancreaticopericardial fistula did not respond to endotherapy.[5] The long term result of such management is not known and needs to be validated. The success of endotherapy depends on passing the guidewire across the leak, absence of tight strictures and deployment of appropriate length stent.

We recommend ERCP and stenting in the initial management of such patients.

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References

1. Prakash K (2012). Pancreatic Ascites and Pleural Effusion, Pancreatitis - Treatment and Complications, Prof.Luis Rodrigo (Ed.), ISBN: 978-953-51-0109-3.
2. Cameron JL. Chronic pancreatic ascites and pancreatic pleural effusions. *Gastroenterology*. 1978;**74**:134–40.
3. Balasubramanian P, Jeyamani R, Govil S, Chacko A, Kurian G, Subhash HS,et al. Pancreatico-pericardial ûstula: a rare complication of chronic pancreatitis. *Indian J Gastroenterol*. 2004;**23**:31–2.
4. Ching SS, Rao MM, Ali A, et al.: Chronic pancreatitis complicated by pancreaticopericardial fistula. *Surgical Practice*. 2007;**11**:130–3
5. Sommer CA, Wilcox CM. Pancreatico-pericardial fistula as a complication of chronic pancreatitis. *F1000 Res*. 2014;**3**:31.

Periampullary gastrointestinal stromal tumor presenting with obstructive jaundice

Introduction

GIST is the most common mesenchymal neoplasm of the gastrointestinal (GI) tract representing 0.1-3% of all gastrointestinal malignancies. GIST cells are thought to arise from a common precursor cell which also gives rise to intestinal cells of Cajal. GIST results from activating mutations in receptor protein kinase: either KIT (CD 117) or PDGFRA (platelet derived growth factor receptor alpha). The stomach and intestine are common sites of GIST. The periampullary region is a very rare site for GIST. To the best of our knowledge, only three cases of periampullary GIST have been reported before.[1,2,3]

Methods

A 48-year-old man presented with progressive jaundice, anorexia and weight loss for 2 months, fever and abdominal pain for 7 days. On examination the patient was pale and icteric. There was firm, tender hepatomegaly 5 cm below the subcostal margin. Investigations showed microcytic hypochromic anemia (hemoglobin-6.3g%) with leucocyte count 12900cells/mm^3 and neutrophils 85%. The stool was positive for occult blood. The patient had conjugated hyperbilirubinemia with total and direct bilirubin of 4.6 mg/dL and 4.0 mg/dL, respectively and alkaline phosphatase of 693U/L. Ultrasonography of the abdomen showed liver size 16 cm with dilatation of IHBR and common bile duct and 8.8×4.8×5.5 cm heterogenous hyperechoic mass near the head of pancreas in the periampullary region. CECT abdomen revealed 8.3 cm x8.1 cm well defined lesion in the region of the head of pancreas (**Figure a**). MRCP showed a well-defined lobulated hyperintense lesion in the region of head and uncinate process of pancreas with sudden cutoff of common bile duct (**Figure b**) and pancreatic duct at the lesion, which was suggestive of malignancy. Upper gastrointestinal endoscopy (**Figure c**) was done and multiple biopsies were taken from the mass. Endoscopic retrograde cholangiopancreatography failed to relieve biliary obstruction because of the large mass at the ampulla.

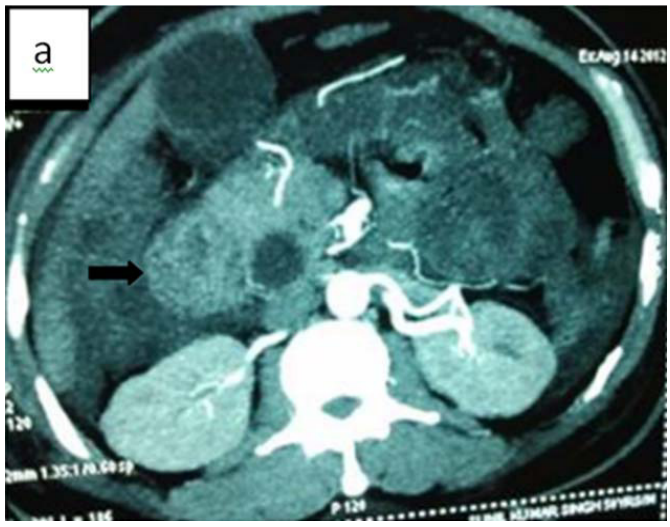

Figure a: CECT abdomen showing 8.3x8.1cm periampullary tumor (arrow)