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Case Report

Successful Conservative Management of Pancreatitis complicated by Pancreatogastric Fistula

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Abstract

Objective: To identify pancreatogastric fistula as a rare complication of organized pancreatic necrosis.

Case Report: 48 year old male with a history of alcohol abuse presented with severe epigastric pain for 5 days and hematemesis and melena for about 24 hours prior to presentation. On admission, he was hypotensive (96/62mmHg), tachycardic (107beats/min) with epigastric tenderness and maroon stool in rectal vault. His hemoglobin was 7.7 g/dl, WBC count was 22.1 K/mm3 and lipase was 16 U/L. CT scan showed chronic pancreatitis and organized pancreatic necrosis abating the stomach. EGD showed clotted blood in the entire stomach but no site of active bleeding was identified. A large fistula leading to pseudocyst was found in the cardia. This was draining pus and debris. The cyst was accessed by the gastroscope for possible irrigation and debridement. However, bleeding of arterial nature appeared from within the cyst that could not be stopped despite epinephrine injections. Surgical intervention was initially planned but a tagged RBC scans done soon after endoscopy suggested against ongoing bleeding. In the absence of active bleed and ongoing necrotizing and inflammatory process emergent surgical intervention was deferred and he was monitored in the ICU. His hemoglobin remained stable requiring no further transfusions. Patient was pain free and tolerating regular diet after 3 days of hospitalization. Repeat CT scan showed reduction in cyst size to less than half within a week of initial.

Conclusion: Organized pancreatic necrosis in the setting of chronic relapsing pancreatitis can drain into adjacent organs through a fistula. This can help in the healing process and can potentially save a patient from challenging and difficult surgical intervention.

Introduction

Spontaneous perforation of pancreatic pseudocysts is a rare event. About 3 % of pancreatic pseudocysts spontaneously perforate [1]. Spontaneous rupture of a pseudocyst into a hollow viscus usually results in bleeding and requires emergent surgical intervention [2]. We present a case of spontaneous rupture of a pancreatic pseudocystthat manifested with hematemesis and hemodynamic instability. We were successful in managing this patient conservatively as he was deemed high risk for surgical intervention.

Case

A 48 year old male with history of alcohol abuse presented with severe epigastric pain for 5 days. He reported hematemesis and melena. On examination he was afebrile, tachycardic (107 beats/min) and hypotensive (96/62 mm Hg). He had epigastric tenderness, hypoactive bowel sounds and maroon stool in rectal vault. Rebound tenderness was absent. His laboratory results were significant for an elevated white blood cell count 22.1 $x10^9$(4-10 x 10^9), acute blood loss anemia as his Hgb dropped from 7.7 g/dl to 4.8 g/dl (reference range, 12-16g/dl), glucose 5.3mmol/l (4.4-6.4mmol/l), blood urea nitrogen 2.3mmol(2.1-7.1mmol/l), and creatinine 55umol/l (44.2-106umol/l). Other laboratory values of note were total protein55 g/l (60-80 g/l), albumin 2.0 g/l (3.5-5g/l), calcium 2.05 mmol/l (2.1-2.6 mmol/l), total bilirubin 15.5 umol/l (0-17.1 umol/l), aspartate aminotransferase50 U/L (0-45 U/L), alanine aminotransferase 36 U/L (0-37 U/L),amylase 70 U/L (25-125 U/L) and lipase16 U/L (10-140U/L).Chest radiography was normal. An abdominal CT scan showed chronic pancreatitis and a pancreatic pseudocyst abutting the stomach (Figure 1). Endoscopy showed clotted blood in the entire stomach but no site of active bleeding was identified (Figure 2). A large fistula leading to the pseudocyst was found in the cardia and was noted to be draining pus and debris. The cyst was accessed with gastroscope for possible irrigation and debridement. However, this was abandoned due to arterial bleeding in the cyst that could not be controlled with epinephrine injections. A tagged RBC scan showed no evidence of active bleed suggesting that bleeding had ceased. In the absence of active bleed and because of the ongoing necrotizing and inflammatory process, emergent surgical intervention was deferred. He was monitored in the ICU and received intravenous fluids, analgesics, and intravenous antibiotics. His Hgb remained stable requiring no further transfusions. Patient was pain free and tolerating regular diet at day 3 of hospitalization.

A repeat CT abdomen was done that showed reduction of cyst size to less than half within a week of initial presentation.

Discussion

Pancreatic pseudocysts result in rupture and bleeding due to severe inflammation, lytic activity of pancreatic enzymes and ischemia via compression. This results in bleeding (if vessels are

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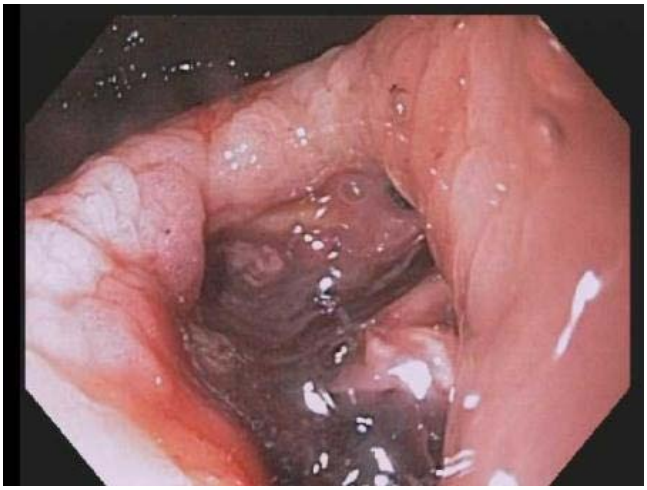

Figure 1: Endoscopic view showing clotted blood in stomach with no active bleeding.

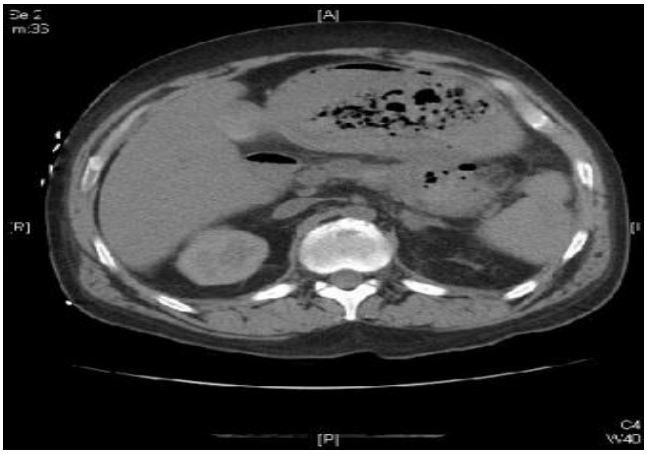

Figure 2: CT abdomen: Note chronic pancreatic atrophy and pseudocyst abating stomach.

erode), fistulas (if connective tissue or adjacent walls erode) and even portal vein thrombosis [2].

The resolution of pancreatic pseudocysts can be due to resolution of inflammation, natural drainage via pancreatic duct into duodenum, rupture resulting in a fistula into the GI tract or rupture into the abdominal cavity [3].

Fistula formation is a rare complication of pancreatic pseudocysts [4]. It is manifested by bleeding, nausea and vomiting of purulent material [5]. The most common location for a fistula to arise is the transverse colon and the splenic flexure [5-7]. The small intestine and the stomach are rare involved. In a study involving 61 patients operated on for severe necrotizing pancreatitis, fistulization was reported in 25 (41%). 14 patients had cutaneous fistulas, whereas 19 had Gastrointestinal (GI) tract fistulas (8 colonic, 5 duodenal, 4 enteric and 2 gastric) [8].

Bleeding is the most common presenting feature of a cystoenteric fistula. In a study, 7 out of 12 patients had GI bleeding (2 hematemesis, 2 hematemesis and melena, and 3hematochezia. Other signs and symptoms associated with rupture of cysts can be a decrease in size of the mass, resolution of symptoms, nausea, vomiting and air in cyst and stomach seen on CT scan [6,9].

The treatment of cystogastric fistulas should be individualized according to the hemodynamic stability of the patient. General measures include nothing by mouth, nasogastric suction, total parenteral nutrition and Octreotide. Most cases require surgery and the general measures were used as a bridge until a definitive plan for surgery is made [10,11]. Doberneck had reported that one third of pancreatojejunal and three fourths of pancreatoduodenal fistulae healed with conservative management, whereas all of the colonic fistulae required surgery [10,12,13].

This case highlights that organized pancreatic necrosis in the setting of chronic relapsing pancreatitis can drain into adjacent organs in the form of a fistula, which can assist healing and decrease the need for highly difficult and complex surgical intervention in challenging patient population.

References

1. Lillemoe KD, Yeo CJ. Management of complications of pancreatitis. Curr Probl Surg. 1998; 35: 1-98.
2. Urakami A, Tsunoda T, Kubozoe T, Takeo T, Yamashita K, Imai H. Rupture of a bleeding pancreatic pseudocyst into the stomach. J Hepatobiliary Pancreat Surg. 2002; 9: 383-385.
3. Ali J, Greenberg H. Spontaneous gastric decompression of pancreatic pseudocyst. Can J Surg. 1992; 35: 104-106.
4. Kochhar R, Masoodi I, Singhal M, Dutta U, Nagi B, Wig JD, et al. Pancreatogastric fistula after severe acute pancreatitis: a case report. Gastrointest Endosc. 2009; 69: 969-971.
5. Levy I, Ariche A. Complete recovery after spontaneous drainage of pancreatic abscess into the stomach. Scand J Gastroenterol. 1999; 34: 939-941.
6. Yeom HJ, Yi SY. Spontaneous resolution of pancreatic gastric fistula. Dig Dis Sci. 2007; 52: 561-564.
7. Ho HS, Frey CF. Gastrointestinal and pancreatic complications associated with severe pancreatitis. Arch Surg. 1995; 130: 817-822.
8. Tsiotos GG, Smith CD, Sarr MG. Incidence and management of pancreatic and enteric fistulas after surgical management of severe necrotizing pancreatitis. Arch Surg. 1995; 130: 48-52.
9. Somani PO, Jain SS, Shah DK, Khot AA, Rathi PM. Uncomplicated spontaneous rupture of pancreatic pseudocyst into stomach: A case report. World J Gastrointest Endosc. 2013; 5: 461-464.
10. Mohamed SR, Siriwardena AK. Understanding the colonic complications of pancreatitis. Pancreatology. 2008; 8: 153-158.
11. Kaman L, Behera A, Singh R, Katariya RN. Internal pancreatic fistulas with pancreatic ascites and pancreatic pleural effusions: recognition and management. ANZ J Surg. 2001; 71: 221-225.
12. Doberneck RC. Intestinal fistula complicating necrotizing pancreatitis. Am J Surg. 1989; 158: 581-583.
13. Berne TV, Edmondson HA. Colonic fistulization due to pancreatitis. Am J Surg. 1966; 111: 359-363.

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