



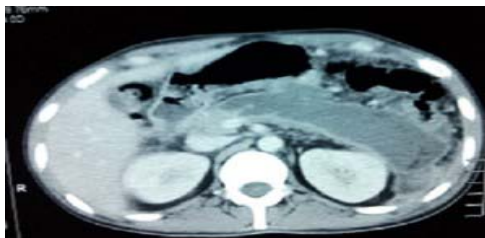
An unusual case of colocutaneous fistula and colonic perforation due to acute pancreatitis

PANDIARAJA J

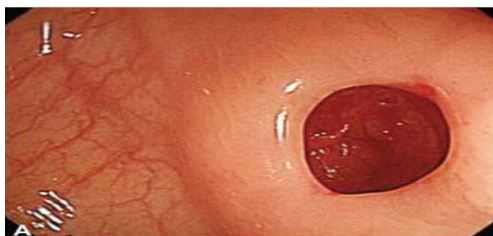
Department of General Surgery, STANLEY MEDICAL COLLEGE AND HOSPITAL

Abstract : Acute pancreatitis has widely variable clinical and systemic manifestations, ranging from mild, a self limiting episode of epigastric pain to severe, life threatening multiorgan failure including sepsis, renal failure and multiorgan failure. Pancreatic necrosis is a diffuse or focal areas of nonviable pancreatic parenchyma, which is typically associated with peripancreatic fat necrosis. Colonic complications of severe pancreatitis occur very rarely. Although pancreatic complications such as pancreatic abscess, chronic pancreatitis occurs in many patients, but colonic complications due to pancreatitis was 1 percent.

Keyword : Acute necrotizing pancreatitis, Colo cutaneous fistula, Colonic perforation, Diversion loop ileostomy



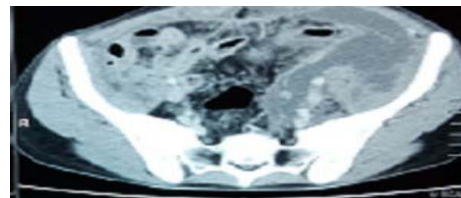
Contrast CT abdomen



Colonoscopy



Post operative image



Contrast CT abdomen

TITLE: An unusual case of colocutaneous fistula and colonic perforation due to acute necrotising pancreatitis

ABSTRACT

Acute pancreatitis has widely variable clinical and systemic manifestations, ranging from mild, a self limiting episode of epigastric pain to severe, life threatening multi organ failure including sepsis, renal failure and multi organ failure. Pancreatic necrosis is a diffuse or focal areas of nonviable pancreatic parenchyma, which is typically associated with peripancreatic fat necrosis. Colonic complications of severe pancreatitis occur very rarely. Although pancreatic complications such as pancreatic abscess, pseudocyst, chronic pancreatitis occurs in many patients, but colonic complications due to pancreatitis was 1%.

Case report:

We report an unusual case of colocutaneous fistula and colonic perforation due to acute necrotizing pancreatitis. During the course of pancreatitis patient developed bleeding per rectum and abdominal skin necrosis. The patient was diagnosed an ethanol induced acute necrotizing pancreatitis with colocutaneous fistula

and colonic perforation. The patient underwent transperitoneal pancreatic necrosectomy with diversion loop ileostomy. Post operatively patient improved well. Pancreatic necrosis with colonic complication were rare and early recognition and prompt treatment will reduce mortality.

Key words:

Acute necrotizing pancreatitis, Colo cutaneous fistula, Colonic perforation, Diversion loop ileostomy

Case Report

27 yrs old male patient who is known alcoholic and smoker for 10 years duration admitted with complaints of abdominal pain for 1 month duration, more on epigastric region, radiating to back associated with a history of nausea and vomiting for 10 days duration. On examination patient was conscious, oriented, and febrile. Pulse rate -110/min, BP- 80/60mmhg. Abdominal examination shows mild abdominal distension. On palpation tenderness present more on epigastric and right hypochondrial region. Free fluid present. At auscultation bowel sound was sluggish. The patient was diagnosed and treated for acute pancreatitis. During the course of the treatment, the patient developed bleeding per rectum for 4 days duration associated with increased abdominal distension and swelling in the right iliac fossa region for 2 days duration and ruptured on the next day. Investigations show anemia with leucocytosis. Mildly elevated liver function test. Renal function test shows hypokalemia. C- reactive protein was positive. Serum amylase and lipase was 896 U/L and 432 U/L respectively Contrast enhancing CT abdomen shows acute pancreatic necrosis with free fluid. Lesser sac collection with air pockets with appears to be communicating with colonic loops (fig 1,2). Upper GI endoscopy shows an extrinsic impression on the greater curvature of the stomach and colonoscopy shows colonic perforation in the level of the transverse colon (fig 3). The patient was diagnosed as acute necrotizing pancreatitis with colocutaneous fistula with colonic perforation. The patient was undergoing laparotomy with transperitoneal necrosectomy with diversion loop ileostomy. Post operatively patient recovered well, except mild wound infection (fig. 4).

Discussion

Severe acute necrotizing pancreatitis associated with a high morbidity and mortality. This may be range from rapidly self limiting situations or extensive tissue damage to multi organ failure. Colonic complications as a consequence of acute pancreatitis are reported to occur in 1% of patients. Colonic complications in pancreatitis are intestinal obstruction, necrosis, perforation and fistula formation (1,2). Colonic complications in acute pancreatitis are uncommon, although the exact pathogenesis of colonic complications in pancreatitis and pancreatic necrosis is unclear. But several proposed theories (3,4,5,6).

1. Perforation at the splenic flexure of the colon due to the pressure produced by giant pseudocyst.
2. Acute mesenteric ischemia due to intravascular depletion due to severe acute pancreatitis.
3. Direct enzyme activity from the dispersion of pancreatic pseudocyst fluid leads to colonic inflammation and necrosis.
4. Thrombosis of mesenteric and submucosal vessels due to inflammation and edema of the transverse colon and splenic flexure. Perforation or fistula formation may occur at all the level of the intestine, but the more common site was transverse colon. The head and body of the pancreas behind the transverse mesocolon, whole pancreatic tail is in close proximity to the splenic flexure (7). Therefore the inflammatory process of the pancreas can spread to the transverse colon and splenic flexure. Colonic fistula development depends on the two factors. Extension of pancreatic necrosis into the mesocolon with encasing pericolic fibrosis and parietal ischemic necrosis secondary to shock and thrombosis with infection. They are managed with surgical closure, bowel rest, antibiotics and nutritional support with surgery remaining the mainstay of treatment for such patient (8). Most of the colonic perforation cases the clues for performing diagnostic work up were

Hematochezia with or without diarrhea. When you suspect colonic perforation as a complication of pancreatitis, it is mandatory to do a colonoscopy with upper GI endoscopy. Because the simultaneous involvement of the colon and stomach or small bowel was reported. Management of colonic complications of severe acute pancreatitis should have a high index of suspicion due to a variety of presentations of colonic complications (2). Most of the cases warrants surgical exploration. During surgical exploration most of the patient need diversion by means of the ileostomy or colostomy depends on the colonic pathology and presentation permanent procedure during this period not warranted.

Conclusion:

Acute necrotizing pancreatitis is a condition where morbidity and mortality is very high due to related complications. So infected or necrotizing pancreatitis should be managed surgically as early as possible. This approach improves both morbidity and mortality due to pancreatitis related complications, patient were diagnosed as pancreatitis presenting with upper GI or lower GI bleeding symptoms, it is always mandatory to do an upper GI endoscopy or colonoscopy to diagnose perforation or fistula formation due to pancreatitis related complications. Most of the time perforation or fistula will be managed by diversion procedure.

ACKNOWLEDGEMENTS:

Prof. Manoharan, Head of the department, Department of surgical gastroenterology.

CONSENT:

"Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request".

REFERENCES

1. Aldridge MC, Francis ND, Glazer G, Dudley HA. Colonic complications of severe acute pancreatitis. *Br J Surg.* 1989 Apr;76(4):362–7.
2. Mohamed SR, Siriwardena AK. Understanding the colonic complications of pancreatitis. *Pancreatol Off J Int Assoc Pancreatol IAP AI.* 2008;8(2):153–8.
3. Shatney CH, Sosin H. Spontaneous perforation of a pancreatic pseudocyst into the colon and duodenum. *Am J Surg.* 1973 Sep;126(3):433–8.
4. Gumaste VV, Gupta R, Wasserman D, Dave PB, Vieux U. Colonic involvement in acute pancreatitis. *Am J Gastroenterol.* 1995 Apr;90(4):640–1.
5. Jover R, Zarco A, Palazón JM. Perforation of pancreatic pseudocyst into the colon: another cause of colonic involvement in pancreatitis. *Am J Gastroenterol.* 1996 Dec;91(12):2653.
6. Adams DB, Davis BR, Anderson MC. Colonic complications of pancreatitis. *Am Surg.* 1994 Jan; 60(1):44–9.
7. Aghenta AA, Kim HJ. An Unusual Case of Colon Perforation Complicating Acute Pancreatitis. *Case Rep Gastroenterol.* 2009 Aug 28;3(2):207–13.
8. Gardner A, Gardner G, Feller E. Severe colonic complications of pancreatic disease. *J Clin Gastroenterol.* 2003 Sep;37(3):258–62.

