A Rare Pancreatitic Sequale

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Abstract: A 35 year old male patient, known case of acute pancreatitis presented in emergency as acute abdomen. Serum amylase – 621 IU/L, X ray abdomen erect revealed generalised ileus, USG abdomen revealed ? perforation probably large bowel origin, CT abdomen revealed gangrenous transverse colon .CT angiography revealed partial occlusion at superior mesenteric artery territory. Emergency laparotomy done, gangrenous segment of transverse colon resected and a colostomy created with proximal end with closure of the distal end. Primary closure of the gastric perforation done. colostomy closure with colocolic anastomosis done after 3 months.

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I.Introduction

Acute pancreatitis is an acute condition presenting with abdomen pain usually associated with raised pancreatic enzymes in blood and urine due to pancreatic inflammation.Gangrene in the transverse colon is due to systemic hypotension created by the disease which leads to slowed down circulation and the vessels commonly affected are superior mesenteric artery more than inferior mesenteric artery . hence thrombus formation and partial occlusion leading to gangrene of the SMA territory . gangrenous colon with gastric perforation as a sequel of Acute pancreatitis is a rare entity.

II.Case Reports

A 35yr old patient, admitted with complaints of abdominal pain and vomiting for 2 months and fever for 3 day .The patient was apparently normal 2 months back, he suddenly developed constant dull aching pain over upper and central abdomen following consumption of alcohol previous night .History of radiation of pain to the back, increase in intensity over te present 3 days, Relieved on medications initially but not responding to any drugs for the present 3 days . History of vomiting since 2 months, vomitus contains undigested food particles, non – bilious, not blood stained. History of fever with chills and rigor since 3 days.History of abdominal distention and loose stools present. He is a known case of **pancreatitis** since 2 months ,On irregular treatment in private hospital since 2 months.On general examination patient was Conscious and oriented ,febrile ,pallor + , tachypnoea + ,dehydration ++,no pedal edema, not icteric. Blood pressure-90/60 mmhg, Pulse - 110/min,Temp-100 F.

Clincal Picture (Fig 1)



Systemic examination CVS,RS ,CNS -normal.

Examination of abdomen

Inspection ,Upper abdominal distention ,

No VIP / VGP, Hernial orifices – free.on **palpation**tenderness present over epigastrium, guarding present over upperabdomen,

no mass or hepatospleenomegaly .on **percussion** No fluid thrill / shifting dullness. On **Auscultation**bowel sounds absent .PR – normal

Investigations:

- 1. Hemoglobin -9 g%.
- 2. Sugar 180mg/dl
- 3. RFT and electrolytes- urea 60 mg/dl, creatinine 1.2mg/dl.
- 4. LFT normal.
- 5. Amylase and calcium-631 IU/lit and 8.5 mg/dl.
- 6. Lipid profile-elevated

Plain X ray abdomen – No air under diaphragm

1. USG abdomen - dilated bowel loops.

2. CT abdomen—possibility of gangrenous transverse colon(splenic flexure) with perforation, focal peritonitis, and partial thrombus of IMA and above intra-renal abdominal aorta.

- 3. CT angiography partial occlusion in the superior mesenteric territory
- 4.

Treatment:

- 1. Midline incision
- 2. FINDINGS
- 3. Abscess in left para-colic gutter and left sub-diaphragmatic space
- 4. A distal 1/3rd of transverse colon (along with splenic flexure) was sloughed out.
- 5. Gastric perforation involving the posterior surface .
- 6. Fluid about 200ml near tail of pancreas.

2.1

Procedure

Primaryclosureofgastricperforation Thorough peritoneallavage Transverse colon end colostomy of proximql end. Distal end was closed with non – absorbable sutures. Closure of abdomen with intra-abdominal drains.







On FOLLOW UPPost op period was uneventful and he was discharged on 14th POD with good GC. Local examination -Wound healthy ,Colostomy functioning well. Repeat USG abdomen ows normal study



Colostomy Closure was done 3months later ,Colo-colic anastomosis between transverse colon in two layers,Postoperative uneventful

III.Discussion

3.1 Acute Pancreatitis

It Is An Acute Condition Presenting With Abdominal Pain And Is Usually Associated With Raised Pancreatic Enzyme Levels In The Blood And Urine As A Result Of Pancreatic Inflammation.

3.2 Complications

3.3 Acute Pancreatitis :

- 1. Acute pseudocyst (within > 4wks)
- 2. Abscess
- 3. Ascitis
- 4. Pancreatic necrosis
- 5. ARF
- 6. ARDS
- 7. DIC
- 8. Hypocalcemia

3.3 Chronic Pancreatitis:

- 1. Chronic pseudocyst (>6 wks)
- 2. Pancreatic-enteric fistula
- 3. Colonic Perforation
- 4. Erosion into visceral artery
- 5. Loss of exocrine and endocrine function
- **6.** Pancreatic cancer

3.4 Etiopathogenesis:

- 1. Pseudocyst and abscess formation (tail of pancreas)
- 1. Acute mesenteric vascular ischemia/ partial occlusion (due to systemic hypotension)

2.Inflammatory changes and pressure necrosis leads to Bowel gangrene (splenic flexure - watershed **area**) which results in Colon perforation and peritonitis.

3.5 Complications :

1.It occurs in 10 % casesrupture / internal fistulation , bleeding , mass effectRupture- pancreatic ascites formation , chronic pancreatitis , erosion of splenic , gastroduoenal , splenic and middle coic vessels , pseudoaneurysm formation.

Pancreatic Enteric Fistula :

- 2. The uncommon entity of pancreatico-enteric fistula is produced by spontaneous rupture of a pancreatic pseudocyst or abscess into an adjacent hollow viscus.
- 3.these fistulas occur between the pancreas and the splenic flexure or transverse colon. Less frequently involved organs include the stomach, duodenum, small bowel, and extrahepatic biliary tree.
- 4. Treatment Options:
- 5.Surgery
- 6.management :
- a. stomach and duodenum
- 7.Spontaneous closure
- 8.If persistent : Surgical correction.
- a. Transverse Colon
- **1**. Only surgical correction.

IV.Conclusion

Gangrenous colon with gastric perforation as a sequel of Acute pancreatitis is a rare entity.

Reference

- [1]. Telem DA, Bowman K, Hwang J, Chin EH, Nguyen SQ, Divino CM. Selective management of patients with acute biliary pancreatitis. *J Gastrointest Surg.* 2009 Dec. 13(12):2183-8.
- [2]. Banks PA, Bollen TL, Dervenis C, et al, for the Acute Pancreatitis Classification Working Group. Classification of acute pancreatitis--2012: revision of the Atlanta classification and definitions by international consensus. *Gut.* 2013 Jan. 62(1):102-11
- [3]. Haydock MD, Mittal A, van den Heever M, et al, for the Pancreas Network of New Zealand. National survey of fluid therapy in acute pancreatitis: current practice lacks a sound evidence base. *World J Surg.* 2013 Oct. 37(10):2428-35.
- [4]. Ai X, Qian X, Pan W, et al. Ultrasound-guided percutaneous drainage may decrease the mortality of severe acute pancreatitis. J Gastroenterol. 2010. 45(1):77-85.

- [5]. Li H, Qian Z, Liu Z, Liu X, Han X, Kang H. Risk factors and outcome of acute renal failure in patients with severe acute pancreatitis. *J Crit Care*. 2010 Jun. 25(2):225-9.
- [6]. Whitcomb DC, Yadav D, Adam S, et al, for the North American Pancreatic Study Group. Multicenter approach to recurrent acute and chronic pancreatitis in the United States: the North American Pancreatitis Study 2 (NAPS2). *Pancreatology*. 2008. 8(4-5):520-31.
- [7]. Elmunzer BJ, Scheiman JM, Lehman GA, et al, for the U.S. Cooperative for Outcomes Research in Endoscopy (USCORE). A randomized trial of rectal indomethacin to prevent post-ERCP pancreatitis. *N Engl J Med.* 2012 Apr 12. 366(15):1414-22.
- [8]. Kamisawa T, Funata N, Hayashi Y, et al. A new clinicopathological entity of IgG4-related autoimmune disease. J Gastroenterol. 2003. 38(10):982-4.
- [9]. Granger J, Remick D. Acute pancreatitis: models, markers, and mediators. *Shock*. 2005 Dec. 24 suppl 1:45-51.
- [10]. Singla A, Csikesz NG, Simons JP, et al. National hospital volume in acute pancreatitis: analysis of the Nationwide Inpatient Sample 1998-2006. HPB (Oxford). 2009 Aug. 11(5):391-7.
- [11]. Banks PA. Epidemiology, natural history, and predictors of disease outcome in acute and chronic pancreatitis. *Gastrointest Endosc*. 2002 Dec. 56(6 suppl):S226-30.
- [12]. Morinville VD, Barmada MM, Lowe ME. Increasing incidence of acute pancreatitis at an American pediatric tertiary care center: is greater awareness among physicians responsible?. *Pancreas*. 2010 Jan. 39(1):5-8.
- [13]. Akhtar AJ, Shaheen M. Extrapancreatic manifestations of acute pancreatitis in African-American and Hispanic patients. *Pancreas*. 2004 Nov. 29(4):291-7.
- [14]. Huh JH, Jeon H, Park SM, et al. Diabetes mellitus is associated with mortality in acute pancreatitis. *J Clin Gastroenterol*. 2016 Dec 22. .
- [15]. Whitcomb DC. Clinical practice. Acute pancreatitis. N Engl J Med. 2006 May 18. 354(20):2142-50. .
- [16]. Suppiah A, Malde D, Arab T, et al. The prognostic value of the neutrophil-lymphocyte ratio (NLR) in acute pancreatitis: identification of an optimal NLR. J Gastrointest Surg. 2013 Apr. 17(4):675-81.
- [17]. Mikolasevic I, Orlic L, Poropat G, et al. Nonalcoholic fatty liver and the severity of acute pancreatitis. Eur J Intern Med. 2017 Mar. 38:73-8.
- [18]. [Guideline] Tenner S, Baillie J, DeWitt J, Vege SS, and the American College of Gastroenterology. American College of Gastroenterology guideline: management of acute pancreatitis. Am J Gastroenterol. 2013 Sep. 108(9):1400-15; 1416.
- [19]. [Guideline] Vege SS, Ziring B, Jain R, Moayyedi P, and the Clinical Guidelines Committee, American Gastroenterology Association. American Gastroenterological Association institute guideline on the diagnosis and management of asymptomatic neoplastic pancreatic cysts. *Gastroenterology*. 2015 Apr. 148(4):819-22; quiz 12-3.
- [20]. Imamura Y, Hirota M, Ida S, et al. Significance of renal rim grade on computed tomography in severity evaluation of acute pancreatitis. *Pancreas*. 2010 Jan. 39(1):41-6.
- [21]. Balthazar EJ, Ranson JH, Naidich DP, Megibow AJ, Caccavale R, Cooper MM. Acute pancreatitis: prognostic value of CT. Radiology. 1985 Sep. 156(3):767-72.
- [22]. Balthazar EJ, Robinson DL, Megibow AJ, Ranson JH. Acute pancreatitis: value of CT in establishing prognosis. *Radiology*. 1990 Feb. 174(2):331-6. Balthazar EJ. Staging of acute pancreatitis. *Radiol Clin North Am*. 2002 Dec. 40(6):1199-209.
- [23]. Badalov N, Tenner S, Baillie J. The prevention, recognition and treatment of post-ERCP pancreatitis. *JOP*. 2009 Mar 9. 10(2):88-97.
- [24]. Testoni PA, Mariani A, Giussani A, et al, for the SEIFRED Group. Risk factors for post-ERCP pancreatitis in high- and low-volume centers and among expert and non-expert operators: a prospective multicenter study. Am J Gastroenterol. 2010 Aug. 105(8):1753-61..
- [25]. Parihar V, Ridgway PF, Conlon KC, Huggett M, Ryan BM. The role of endoscopic intervention in the management of inflammatory pancreatic fluid collections. *Eur J Gastroenterol Hepatol*. 2017 Apr. 29(4):371-9.

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