
LOCAL-FOCAL NECROTIZING HAEMORRHAGIC ACUTE PANCREATITIS A CASE REPORT AND REVIEW OF LITERATURE

Mahmood A.H. Salih

M.B.Ch.B Arab Board Certified Surgeon, Department of Surgery, College of Medicine, University of Mosul, IRAQ.

Summary

A rare case of a twenty-six years old male, presented to emergency department of Mosul General Hospital in Mosul, as acute abdomen, on exploration, acute local- focal necrotizing pancreatitis was found, presented as a tumour like swelling related to the distal part of pancreas, treated by necrosectomy (distal pancreatectomy), followed-up for 10 years without any sequelae, complications or recurrence. The present report documents a careful necrosectomy as the basic principle of surgical management of patients with focal necrotizing pancreatitis, which was supported by many other reports, published recently abroad.

Introduction

The early assessment, and management of severe acute pancreatitis remains a difficult clinical problem¹. Although conservative treatment is the treatment of choice in acute pancreatitis². However sometime preoperative diagnosis may be difficult or impossible³, laparotomy in such case establishes the diagnosis and has a role in excising any necrotic tissue¹. In this paper, a report of one case of focal local acute haemorrhagic pancreatitis is presented and the treatment, follow-up, is described.

Correspondence to:

Dr. Mahmood A.H. Salih
Department of Surgery, College of Medicine,
University of Mosul, IRAQ.

Case Report

A 26-years old male referred to Emergency Department of Mosul General Hospital on 16th July 1990, as a case of acute abdomen of 2days duration. On admission he was shocked (systolic B.P < 90mmHg) with signs of peritonitis, no previous history of trauma or indulgence of special drug, or alcohol, with neither similar attacks before, nor in family.

Clinical suspicion of perforated viscus was entertained in spite of negative pneumoperitoneum on x-ray. After giving intra-venous fluid and rehydration, the patient was taken to theatre, abdomen was explored through long upper mid-line incision, a free

blood stained peritoneal fluid with areas of fat necrosis at upper abdomen especially in and through the left transverse mesocolon and around distal part of pancreas, was found.

The pancreas was exposed, and the retroperitoneum was carefully explored to detect extrapancreatic necrosis. The distal part of pancreas, mainly the tail was edematous and swollen with necrosis and hemorrhage, forming a mass-like tumour of 6x7 cm in diameter mainly of necrotic tissue.

Necrosectomy was started using blunt finger fracture technique, most of the mass was removed carefully and accurately enbloc, and sent for histopathology which revealed a diagnosis of focal haemorrhagic acute pancreatitis (Fig.1). The surgical debridement completed, leaving only adherent tissue that could not easily be teased free, to avoid injury of major vessels and neighboring structures. Tube drain was left at the necrotic area, and the abdomen closed in mass using proline No 1-suture material in a continuous running double layers.



Figure 1. Wide spread necrosis of pancreatic tissue with intestinal edema and haemorrhage, and heavy neutrophilic infiltration, consistent with acute haemorrhage pancreatitis (H & E X400)

The patient ran a smooth postoperative course and was discharged well on the 7th postoperative day. During hospitalization the patient was put on intravenous antibiotic therapy (Gentamycin, Ampiclox and Metronidazole for 5 days). The patient returned to his usual activity within 4 weeks and remained well and symptoms-free for the next 10-years.

Discussion

Acute pancreatitis ranges in severity from mild, self-limiting condition, to a fulminating illness resulting in death within days of onset. The difficulty in predicting the likely course of the illness⁴ has been well described particularly when assessment is carried out on admission to hospital⁵. In this patient the condition was severe because he presented with shock and signs of peritonitis. Historically acute pancreatitis had been considered to be of two-types, haemorrhagic or subacute^{6,7}. On exploration local focal necrohaemorrhagic acute pancreatitis forming mass related to the distal part of pancreas consisting mainly of necrotic tissue was found. Although little disagreement regarding the necessity for surgical intervention is still existing^{8,9}, careful necrosectomy including debridement, removal of necrotic parenchyma and all peripancreatic necrosis was performed in my case. These surgical procedures considered as the basic principle of surgical management of patient with necrotizing pancreatitis^{9,10}. In fact it represents a therapeutic necessity in such patient^{11,12}, because the severity of the local inflammation and the systemic complications are related to the amount of pancreatic parenchymal necrosis with development of bacterial contamination¹³.

Luckily there was no infection in my case because of the early intervention and the use of antibiotics. As in other

reports prophylactic antibiotics was used to avoid infection, the most important cause of death in such cases^{3,9}. It is not necessary to remove every gram of devitalized tissue¹⁶. But debridement should be sufficiently extensive to remove the main necrotic areas, and it should be done carefully to avoid damage to surrounding structures, especially major vessels, the small or large bowel¹⁵. Follow up for 10 years in this case was free. Review of literature revealed that the mortality rate of

patients with acute pancreatitis ranged between 15-20%¹⁷⁻¹⁹, and more than 80% of those who die from acute pancreatitis were due to septic complications^{20,21}. The initial 72 hours after onset of symptoms of acute pancreatitis serve as a crossroad for which severe clinical disease develop in as many as 30% of patients with acute pancreatitis, and such period represent the initial hypovolemic stage during which hypotension or even hypovolemic shock acts as a leading feature²².

References

1. Dervenis C, Jonnson CD, Bassi C. Objective assessment of severity, and management of acute pancreatitis. *Int J Pancreatol* 1999; 25(3): 198-210.
2. Beger HG, Isenmann R. Surgical management of necrotizing pancreatitis. *Surg Clin North Am* 1999; 79(4): 783-800.
3. Laws HL, Kent RB. Acute pancreatitis, management of complicating infection. *Am Surg* 2000; 66(2): 145-152.
4. Larvin M, McMahon MJ. APACHE-II score for assessment and monitoring of acute pancreatitis. *Lancet* 1989; 2:201-205.
5. Wilson C, Heath D, Imrie C. Prediction of outcome in acute pancreatitis: A comparative study of APACHE II, clinical assessment and multiple factor scoring systems. *Br J Surg* 1990; 77:1260-4.
6. Prince M. Pancreatic apoplexy with a report of two cases. *Boston Med Surg J* 1882; 107: 28.
7. Bradley EL. A clinically based classification system for acute pancreatitis: Summary of the international symposium on acute pancreatitis, Atlanta, GA, September 11 through 13, 1992-*Arch Surg* 1993; 128: 586-590.
8. Imrie CW. Surgical management of necrotizing pancreatitis: Indications for surgical management in Beger HG, Warshaw AL, Buchler MW, et al (eds): *The pancreas*. Oxford, Blackwell scientific, 1998, PP 557-561.
9. Pederzoli P, Bassi C, Vesentni A, et al. A randomized multicenter clinical trial of antibiotic prophylaxis of septic complications in acute necrotizing pancreatitis with imipenem. *Surg Gynecol Obstet* 1993; 176:480-483.
10. Sarr MG, Nagorney MD, Much P Jr, et al: Acute necrotizing pancreatitis: Management by planned, staged pancreatic necrosectomy / debridement and delayed primary wound closure over drain. *Br J Surg* 1991; 78, 576-581.
11. Isenmann R, Ran B, Schoenberg MH, et al. Determinants of organ failure (OF) in patients with necrotizing pancreatitis (NP) (abstract). *Gastroenterology* 1998; 114:A470.
12. Karimgani I, Porter kA, Langevin RE, et al: Prognostic factors in sterile pancreatic necrosis. *Gastroenterology* 1992; 103: 1636-1640.
13. Norman J: The role of cytokines in the pathogenesis of acute pancreatitis. 1998; *Am J Surg* 175:76-83.
14. Bradley EL, III: A fifteen year experience with open drainage for infected pancreatic necrosis, *Surg Gynecol* 1993; 177:215-222.
15. Orlando R 111, Welch JP, Akbari CM, et al: Techniques and complications in open drainage for infected pancreatic necrosis. *Surg Gynecol Obstet* 1993; 177: 65-71.
16. Fugger R, Gotzinger P, Sautner T: Necrosectomy and Laparotomy: A combined therapeutic concept in acute necrotizing pancreatitis. *Eur J Surg* 1995; 161:103-107.
17. Tsiotos GG, Luque-de Leon, Sarr MG: Long-term outcome of necrotizing pancreatitis treated by necrosectomy. *Br J Surg* 1988; 85: 1650-1653,.
18. Ho Hs, Frey CF: The role of antibiotic prophylaxis in severe acute pancreatitis. *Arch Surg* 1997; 132:487.
19. Fernandez-del Castillo C, Rattner DW, Makary MA, et al: Debridement and, closed packing for the treatment of necrotizing pancreatitis *Ann Surg* 1998; 228: 676,.

20.Rau B, Uhl W, Buchler MW, et al: Surgical treatment of necrosis. World J Surg 1997; 21:155,.
21.Isenmann R, Buchler MW:

Infection and acute pancreatitis. Br J Surg 1994; 81:1707-1708,.
22.Beger HG, Bittner R, Buchler M, et al: Hemo-

dynamic data pattern in patients with acute pancreatitis. Gastroenterology 1986; 90:74-79.