ORIGINAL RESEARCH PAPER

General Surgery

KEY WORDS: Pancreatitis, superior mesenteric vein thrombosis, splenic vein thrombosis, small bowel ischemia, bowel obstruction

THE SURGEON'S ILLUSION

Dr Debopriya Paul Postgraduate, General Surgery, Sri Ramachandra Institute of Higher Education and Research, Porur, Chennai.

Prof. Rajasenthil V Professor, Department of General Surgery, Sri Ramachandra Institute of Higher Education and Research Porur, Chennai.

Dr Manoj Prabhakar Assistant Professor, Department of General Surgery, Sri Ramachandra Institute of Higher Education and Research, Porur, Chennai.

ABSTRACT

A middle aged alcoholic patient with a history of recurrent pancreatitis presented with 2 days of abdominal pain, radiating to the back, with multiple episodes of bilious vomiting with food particles. Tachycardic with diffuse abdominal tenderness and absent bowel sounds. Initially treated as pancreatitis. But as Ryles tube aspirate turned feculent , it raised the suspicion of aperistaltic bowel. With CECT abdomen, the patient was diagnosed with superior mesenteric and splenic veins thrombosis and with obstructive and pregangrenous features in the distal jejunal loops . Hence , resection followed by end-to-end anastomosis was performed, addressing the critical condition. Postoperatively , a comprehensive approach resulted in complete recovery of the patient in a week .

INTRODUCTION

This case highlights a rare occurrence of bowel ischemia secondary to acute pancreatitis, emphasizing the potential severity of vascular complications beyond the pancreas.

Case Report

A middle aged alcoholic patient presents to our Emergency department with a 2 day history of abdominal pain in the epigastric region, radiating to the back . He also had multiple episodes of bilious vomiting with food particles .

Patient was tachycardic with a heart rate of 120 beats per minute. On examination, there was diffuse abdominal tenderness and absent bowel sounds. On laboratory investigations total leukocyte counts were 15,300/microliter with serum amylase and lipase of 1573 and 5547 units per liter, respectively. Hence, initially treated as pancreatitis. On the second day of admission, nasogastric tube aspirate turned feculent which raised the suspicion of aperistaltic bowel.

Hence CECT-abdomen was done which showed: 1)Bulky and heterogeneous pancreas with peripancreatic fluid collection, 2)Thrombosis at confluence of superior mesenteric vein and splenic vein, 3)Dilated jejunal loops- small bowel obstruction with transition point.

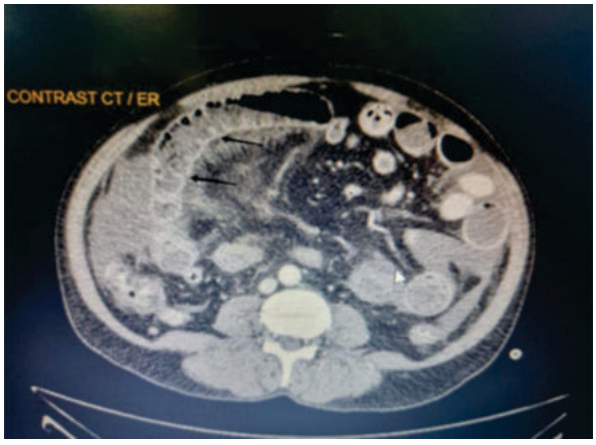

Figure 1 : CECT Abdomen Showing Dilated Jejunal Loop (Black Arrow)

An emergency laparotomy revealed inflammatory peritoneal fluid (~500ml) and 80cm of pregangrenous small bowel (100 cm from DJflexure). Resection followed by end-to-end anastomosis was performed, addressing the critical condition.

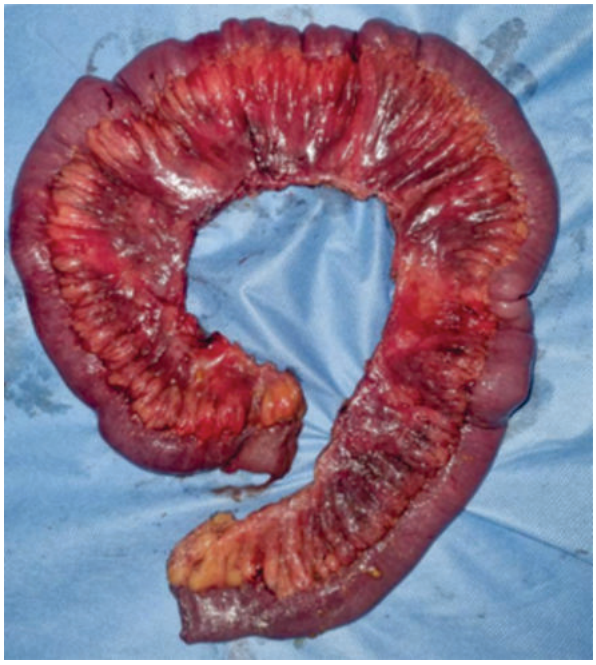

Figure 2 : Resected Portion Of Small Intestine Showing Pregangrenous Changes

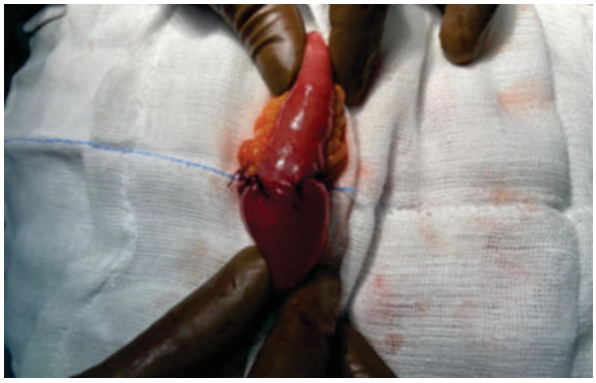

Figure 3 : End To End Jejuno-jejunal Anastomosis

Postoperative Management

A comprehensive approach, including nutritional support, antibiotics, and intensive care, resulted in the patient's recovery within a week.

DISCUSSION

Bowel complications of acute pancreatitis such as paralytic ileus, ischemic necrosis, perforation and mechanical obstruction are relatively infrequent(1) .

Acute pancreatitis is a potentially fatal disease with vascular complication not just affecting pancreas, but also other organs if inflammatory insult is sufficiently strong. The mechanisms proposed for these complications are- Firstly, direct spread of extravasated pancreatic enzymes along the mesenteric planes(2) : (a)along the mesocolon to transverse colon and (b)along small bowel mesentery to jejunal loops and ileocecal junction. Secondly, direct I vascular endothelial damage, compression, or pressure from oedematous pancreas causing venous stasis and hence thrombosis.The persistent release of the inflammatory mediators(IL-1,2,TNFa)can trigger a coagulation cascade, leading to endothelial damage and venous thrombosis(3) .

CONCLUSION

In summary, the complexity of pancreatitis and its potential to cause serious secondary conditions underscores the need for vigilant investigation of both vascular and gastrointestinal complications whenever this diagnosis is made.Early detection and management of vascular and gastrointestinal complications can significantly improve outcomes, reduce morbidity, and enhance the overall quality of care for patients with pancreatitis.

REFERENCES

1. Sunkara, T., Etienne, D., Caughey, M., & Gaduputi, V. (2017). Small Bowel Obstruction Secondary to Acute Pancreatitis. Gastroenterology Research, 10(1), 42-44. doi: 10.14740/gr758w PMCID: PMC5330692 PMID: 28270876
2. Meyers MA, Evans JA. Effects of pancreatitis on the small bowel and colon: spread along mesenteric planes. Am J Roentgenol Radium Ther Nucl Med. 1973 Sep;119(1):151-65. doi: 10.2214/ajr.119.1.151. PMID: 4744721.
3. Bansal, A., Gupta, P., Singh, H., Samanta, J., Mandavdhare, H., Sharma, V., Sinha, S.K., Dutta, U. and Kochhar, R. (2019), Gastrointestinal complications in acute and chronic pancreatitis. JGH Open, 3: 450-455. https://doi.org/10.1002/jgh3.12185