A RARE CASE OF EMPHYSEMATOUS PANCREATITIS: A CASE REPORT

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Abstract

High mortality is noted with a rare complication of pancreatitis also known as emphysematous pancreatitis. Here we present a rare case of a 40 years old male patient presented with complain of epigastric pain. It is considered as a surgical emergency.

Keywords: mortality, surgery, emphysematous pancreatitis, necrotizing infection

Introduction

Emphysematous pancreatitis is a rare complication of pancreatitis but carries a high mortality rate. It is a gas forming, severe necrotizing infection of the pancreas and its surrounding tissues.

Gas-forming organisms from the bowel may enter the pancreas to cause emphysematous pancreatitis.

Typical routes of entry include haematogenous and lymphatic spread, as well as direct invasion from reflux through the ampulla of Vater, or transmural passage from the adjacent transverse colon. Most cases are bacterial and *E. coli* being the commonest organism, followed by *K. pneumonia*, *Pseudomonas*, *Clostridium perfringens* and rarely *Candida* species.^[1]

Case Report

A 40 Year old Male patient presented with c/o Epigastric pain since 1.5 months. It was associated with Nausea, Vomiting & Abdominal Fullness. No history of alcohol consumption and no prior comorbidities. On examination, per abdomen was found soft, non tender.

On investigation, Patient was a newly diagnosed case of DM with altered LFT & Serum amylase and lipase were significantly raised. Patient had developed Diabetic Ketoacidosis on admission. After stabilisation, further investigation for Epigastric pain was done.

On USG, GB was distended with multiple calculi, largest measuring 18 mm.

Pancreas appeared bulky with altered echotexture. Mild peripancreatic free fluid noted.

On CECT Abdomen: Pancreatic parenchyma is replaced by approximately 153*44*85 mm sized collection with internal multiple air foci within it, suggestive of Emphysematous Pancreatitis. Marked peripancreatic fat stranding noted. Mild peripancreatic fluid collection noted. Approximately 9*10 mm sized calcific focus noted in body region of pancreas.

Patient underwent Emergency Exploratory Laparotomy + Pancreatic Necrosectomy + Cholecystectomy.

Necrosed pancreas was removed leaving behind head and uncinate process. 250 cc pus was drained from peripancreatic region. Approximately 1L of peritoneal fluid was drained. Gall bladder found distended with thickened wall and multiple calculi. So, Cholecystectomy was done.

Patient was stable with no immediate post operative complications. Patient developed Pancreaticocutaneous fistula in the late post operative period.

Figure 1: CECT abdomen showing emphysematous pancreatitis

Figure 2: Resected necrosed pancreas

Figure 3: Peripancreatic collection drained

Discussion

Emphysematous Pancreatitis is considered to be a Surgical Emergency. It is one of the rare complication of Necrotizing Pancreatitis.

Patients with diabetes are thought to be at increased risk because of their impaired host vascular and tissue response^[2]

Computed tomography (CT) is the imaging modality of choice. It is both highly sensitive and specific in the detection of abnormal gas and is well-suited to reliably depict the anatomical location and extent of the gas

However, a mottled gas pattern in the mid-abdomen is not diagnostic of Emphysematous Pancreatitis. There are several other causes of air in the pancreas that should be considered as these tend to have a more benign course and require less aggressive management^{[3],[4]}. The most common mimicker of EP is the presence of an enteropancreatic fistula.

Management of emphysematous pancreatitis consists of fluid resuscitation and anti-microbial therapy to control septic shock. Depending on the clinical condition surgical debridement or percutaneous drainage may also be possible.

The prognosis for emphysematous pancreatitis really bad with mortality and morbidity rates reaching up to 40% and 100% respectively^[5]

The overall mortality rate is 32.8% and the mortality rate is significantly decreased in patients undergoing initial percutaneous drainage compared to those undergoing initial surgical management (15% vs. 71.4%)^[6]

Late open necrosectomy for walled-off necrosis has a low mortality risk. Open necrosectomy can be done without mortality in the absence of multiple risk factors for surgery.^[7]

A step-up management strategy should be implemented, whereby only patients with treatment failure after percutaneous or endoscopic drainage should be considered for debridement of necrotic tissue (necrosectomy)^[8]

Conclusion

The prognosis of Emphysematous Pancreatitis is very poor with high mortality and definite morbidity. Early radiological diagnosis and aggressive Medical management with percutaneous drainage can prevent Necrosectomy and improve the prognosis of the patient.

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