A RARE PRESENTATION OF SIMULTANEOUS EMPHYSEMATOUS CHOLECYSTITIS, EMPHYSEMATOUS PANCREATITIS AND ASCENDING CHOLANGITIS

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INTRODUCTION

- Ascending cholangitis (AC), emphysematous cholecystitis (EC), and emphysematous pancreatitis (EP) are rare but life-threatening conditions, often requiring prompt procedural intervention to establish adequate source control.
- The latter two conditions are even more fatal and rarely occur simultaneously.
- While EC and EP typically mandate emergent surgical resection, non-operative management has been reported in hemodynamically stable individuals.

CASE REPORT

- We present a 62-year-old male with a history of diabetes and hypertension who presented with nausea, vomiting, and abdominal pain.
- Subsequent evaluation revealed AC, EC, and EP, likely secondary to gallstone pancreatitis.
- Initially, he sought care at an outside emergency department with symptoms of nausea, vomiting, and a cough, where he was diagnosed with respiratory rhinovirus and discharged.
- Three days later, he arrived at our facility with worsening symptoms, including nausea, vomiting, upper abdominal pain, and jaundice.
- On physical examination, his abdomen was soft, distended, and tender, with localized peritonitis. He was hypotensive upon arrival, initially responsive to fluid resuscitation but eventually requiring vasopressors.
- Laboratory tests indicated leukocytosis (WBC 15.96), acute kidney injury (creatinine 3.17), hyponatremia (sodium 128), and transaminitis with direct hyperbilirubinemia (direct bilirubin 14.4, total bilirubin 17.9).
- BiSAP and Ranson scores were 4, and the LRINEC score was 10. Computed Tomography (Figure 1) revealed an obstructive stone in the distal common bile duct (CBD) with extensive pneumobilia, along with EC and EP and small volume pneumoperitoneum.
- After extensive discussions with the patient and his family, outlining the guarded prognosis irrespective of treatment, they elected to pursue aggressive intervention.
- The patient underwent an exploratory laparotomy, cholecystectomy, CBD exploration, and pancreatic debridement.
- Intraoperatively, a necrotic gallbladder with foul-smelling drainage was identified, and complete clearance of the distal CBD was unattainable without trans-duodenal sphincterotomy, necessitating the placement of a T-tube for biliary tree decompression.
- The pancreas was found to be necrotic and was debrided, with the abdomen left open due to ongoing hemodynamic instability.
- The patient was transferred to the intensive care unit for continued resuscitation but experienced further deterioration, leading to the initiation of comfort measures approximately two hours post-operatively.

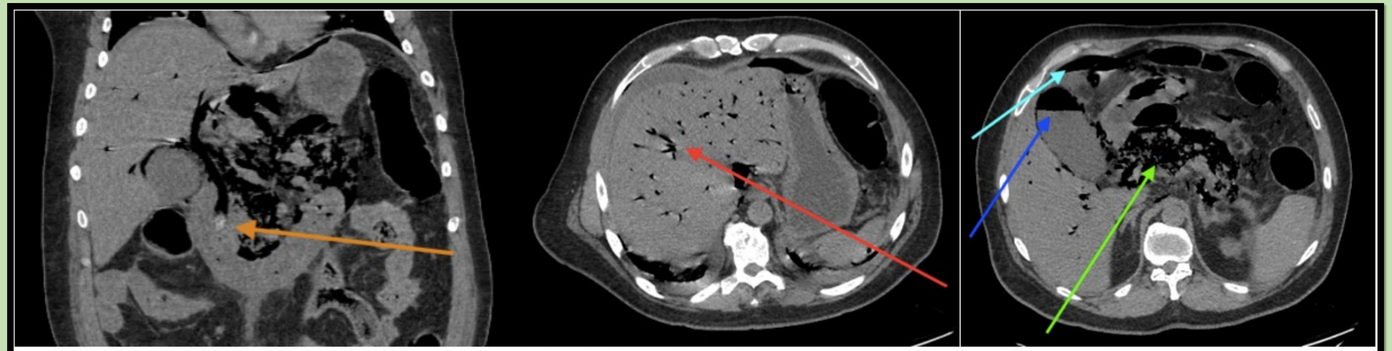


Figure 1: Computed Tomography (CT) imaging showing obstructing CBD stone (orange arrow), pneumobilia (red arrow), pneumoperitoneum (light blue arrow), air-fluid level within the gallbladder (dark blue arrow), and air within the pancreatic tissues (green arrow).

CONCLUSION

- AC, EC, and EP are rare and potentially lethal conditions, with an increased mortality risk when presenting concurrently.
- Given the scarcity of such cases, there is a paucity of clear treatment guidelines, warranting further research.
- Additionally, while the LRINEC score is valuable for assessing necrotizing soft tissue infections, its potential utility in necrotizing/emphysematous intra-abdominal infections should be explored further.