Management of Huge Walled-Off Necrosis Using Sequential Percutaneous and Endoscopic Drainage: The First Experience from Qatar

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Introduction

Acute pancreatitis can be categorized into acute interstitial edematous pancreatitis and acute necrotizing pancreatitis. **Acute necrotizing pancreatitis** is associated with the development of an **acute necrotic collection** that can progress into **walled-off necrosis** once a well-defined inflammatory wall has developed.

Case presentation

We present a 48-year-old patient with a past medical history of hypertension, alcohol use disorder, and acute pancreatitis who presented to our hospital with fever and generalized abdominal pain. CT of the abdomen revealed a large complex multi-loculated pancreatic collection with fluid and multiple air locules measuring16 x 17 x 33 cm (Fig 1.). It also revealed a small distal CBD stone. The patient underwent **percutaneous drainage** with catheter insertion. Repeated CT scan showed interval reduction in the size of the collection (Fig 2.). Three weeks later, the patient underwent **second percutaneous drainage** with catheter insertion. A repeated CT scan of the abdomen showed further reduction of the collection with the development of thick organized wall (walled-off necrosis) (Fig. 3). After EUS confirmed the presence of the small distal CBD stone, **ERCP** was performed with the **insertion of double-pigtail plastic biliary stent** and a pancreatic stent (Fig. 4). Following that, an **EUS-guided cystogastrostomy** was performed with the insertion of a 10F 5 cm long double pigtail plastic stent (Fig. 5). The patient underwent cystogastrostomy tract dilatation with placement of a **second double-pigtail plastic stent** through the cystogastrostomy tract (Fig. 6). 5 weeks later, CT scan of the abdomen revealed a significant reduction in the size of the WON, and the patient finally underwent removal of the two transluminal cystogastrostomy stents and the biliary stent two weeks after the CT scan (8 weeks from the initial cystogastrostomy).

Conclusion

Our presentation highlights a case of severe acute necrotizing pancreatitis complicated by an acute necrotic collection that progressed into walled-off pancreatic necrosis requiring multiple percutaneous and endoscopic drainage procedures.

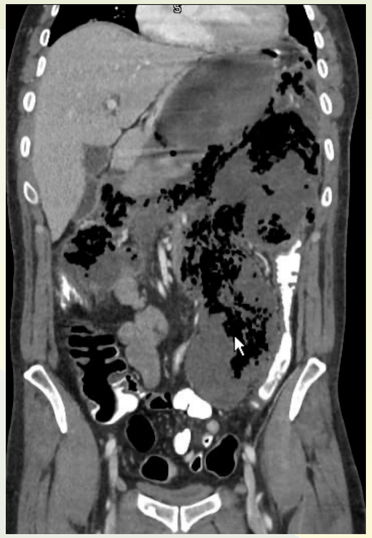

Fig. 1 – Huge acute necrotic collection

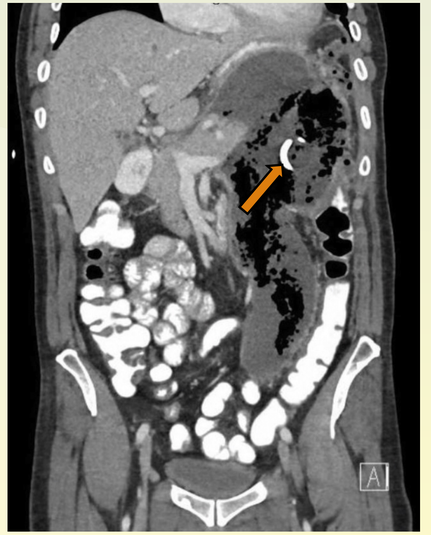

Fig. 2 – Orange arrow: percut drainage catheter

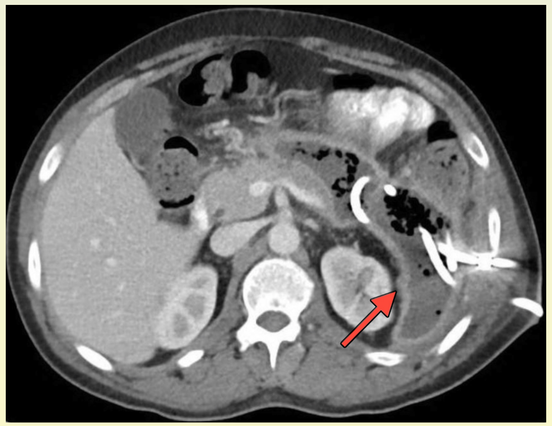

Fig. 3 – Red arrow: Matured wall of pancreatic collection (WOPN)

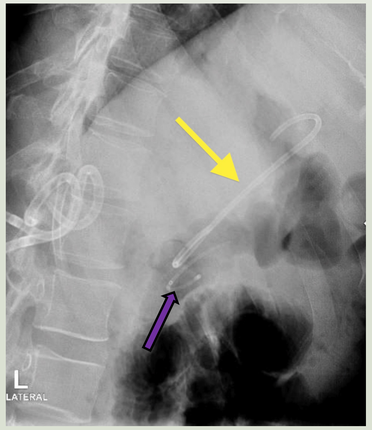

Fig. 4 – Yellow arrow: biliary stent – Purple arrow: pancreatic stent

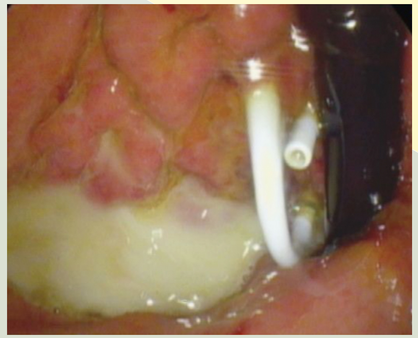

Fig. 5 – pus seen draining from the WOPN

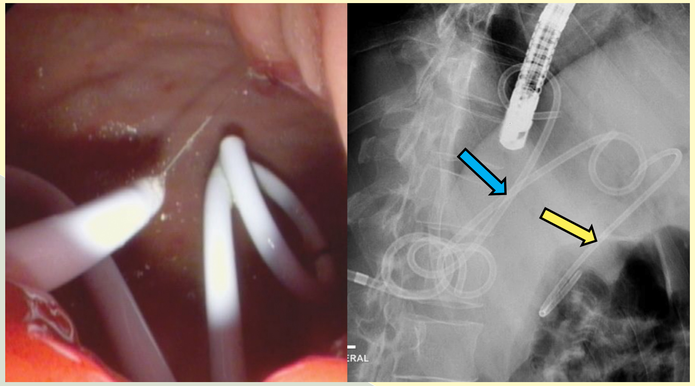

Fig. 6 – Blue arrow: cystogastrostomy stents – Yellow arrow: biliary stent

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