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Resolution of pancreatic ductal disruption through endoscopic ultrasound (EUS)-guided Rendez-vous in a patient with pancreas divisum

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A 73-year-old woman presented with a pancreas divisum was admitted for acute pancreatitis. Abdominal CT was performed due to a torpid evolution with fever and oral intolerance, demonstrating necrosis and ductal disruption in the pancreatic neck. An ERCP was attempted, however, the minor papilla (MP) could not be identified because of the presence of edematous duodenal folds. EUS revealed ductal disruption and the pancreatic duct was punctured using a 22G needle at the level of the body-tail junction (<2 mm). Then, rendez-vous was completed by cannulating the MP with a rail technique and a pancreatic stent was placed. Given the persistence of oral intolerance secondary to the duodenal parietal inflammatory component, EUS-guided gastrojejunostomy was performed with a 20 mm luminal apposition stent. The patient exhibited progressive clinical improvement and was discharged following a control ERCP, which confirmed resolution of the ductal disruption and significant improvement of the duodenal inflammatory changes. Consequently, the endoscopic gastrojejunostomy was reversed.

This case underscores the necessity of EUS-guided rendez-vous due to the inability to identify the MP in the setting of duodenal inflammation, further complicated by a pancreatic duct caliber of less than 2 mm (1,2). Additionally, the duodenal

inflammatory environment made the EUS-guided gastrojejunostomy essential for the management of persistent oral intolerance (3). Resolution of the clinical and inflammatory condition was achieved through a combination of endoscopic and medical approach.

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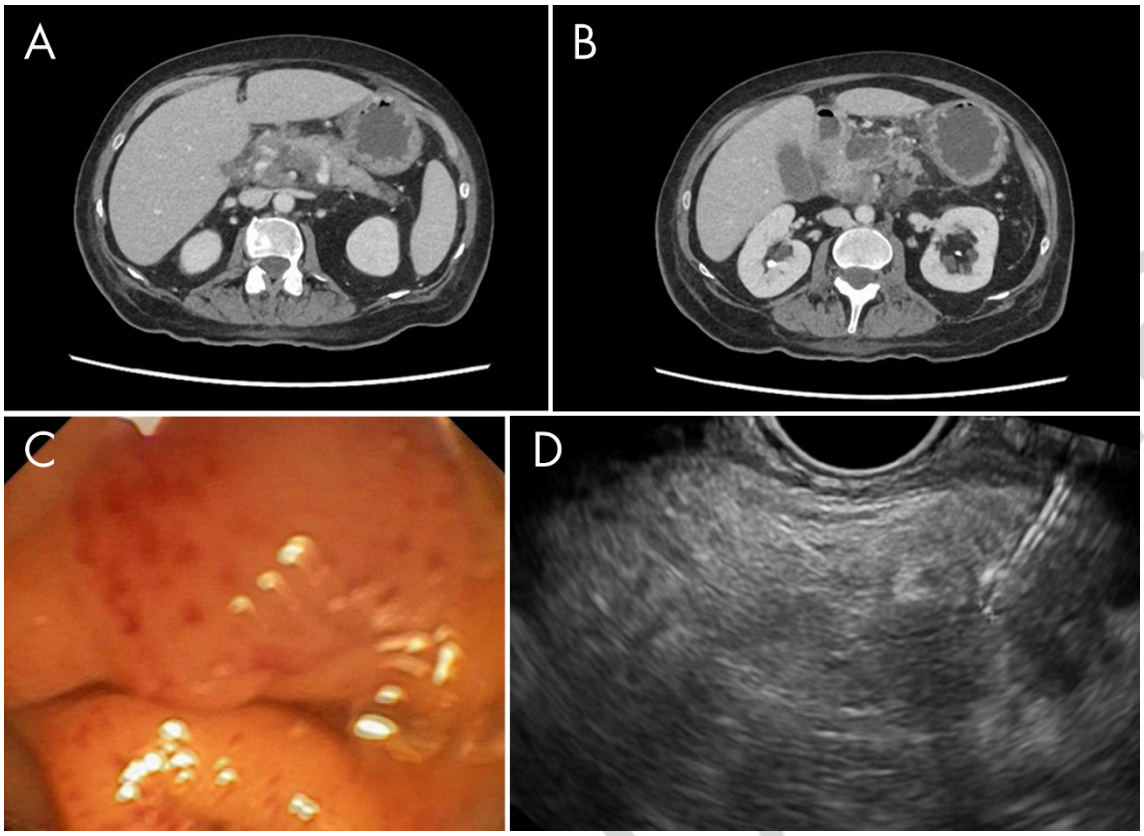

Figure 1: A and B: Abdominal CT demonstrating an acute necrotic collection involving the head and part of the pancreatic body, with minimal extension to the adjacent mesentery, measuring approximately 5.7x3.6 cm at its largest dimension. There is evidence of de-structuring of the pancreatic gland at the head-neck level, without dilation of the Wirsung duct. C: Edematous duodenal folds that partially narrow the lumen, hindering the identification of the papilla. D: Endoscopic ultrasound (EUS) reveals a pancreatic duct of normal caliber (2 mm at the body) that becomes indistinct at the body-isthmus junction. While no peripancreatic collection is observed at this level, complete ductal disruption cannot be definitively ruled out. Puncture of the duct at the body-tail junction (1.2 mm) is performed using a 22G needle.

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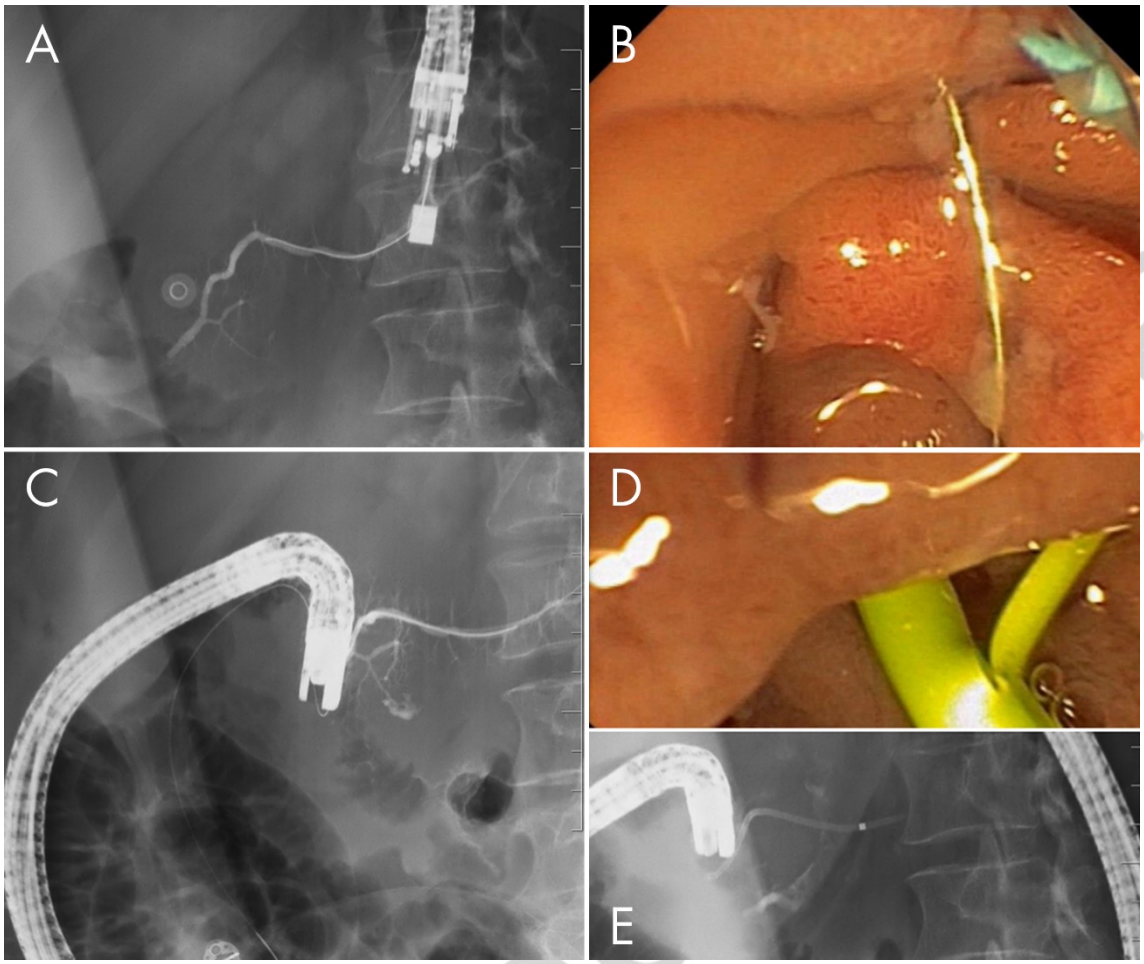

Figure 2: A: Contrast injection confirms an intact main pancreatic duct with a pancreas divisum morphology. A 0.0018 guidewire is advanced through the needle into the duodenal lumen. B: The echoendoscope is removed and the duodenoscope is introduced to identify the guidewire's exit, confirming its location at the minor papilla. Initial attempt at cannulation using a catheter was unsuccessful, however, a rail technique was successfully employed to pass a second guidewire into the dorsal canal, allowing retrieval of the original rendez-vous guidewire. C: Contrast injection reveals leakage, indicating disruption of the secondary branch at the level of the duct's ventral branch. D: Given the impossibility to visualize the minor papilla for sphincterotomy, a 5F and 9cm pancreatic stent is placed. E: Confirmation is obtained that the stent extends beyond the site of ductal disruption.

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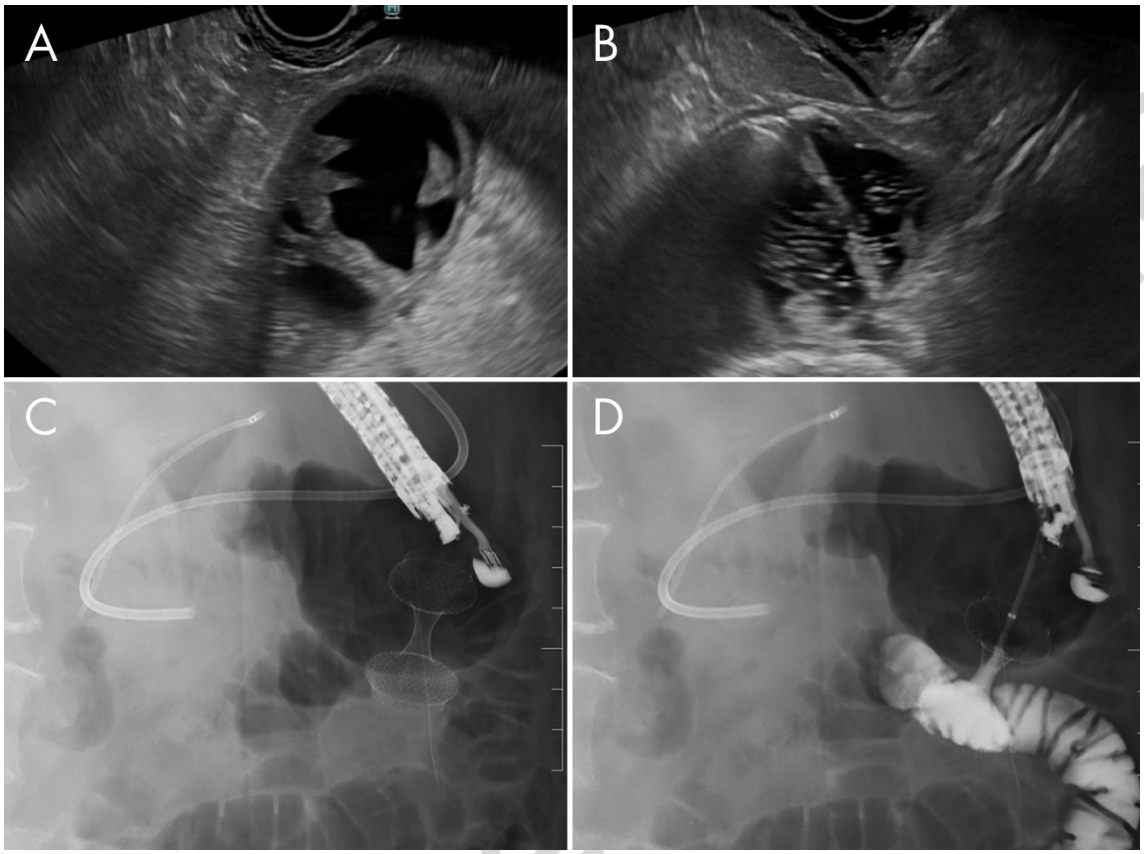

Figure 3: A and B: The echoendoscope is positioned parallel to an 8.5F nasobiliary catheter, and from the gastric lumen, the Treitz angle is identified with the catheter *in situ*. Gelafundin mixed with indigo carmine is injected into the jejunal loop, verifying distension, particularly in a loop distal to the angle of Treitz. C and D: A site with no intervening vessels is identified, with a 5 mm distance between the lumen of the loop and the gastric lumen. At this level, a 20 mm caliber AXIOS is released, with contrast injection confirming correct placement and passage into the jejunal loop.