Primary aortoenteric fistula

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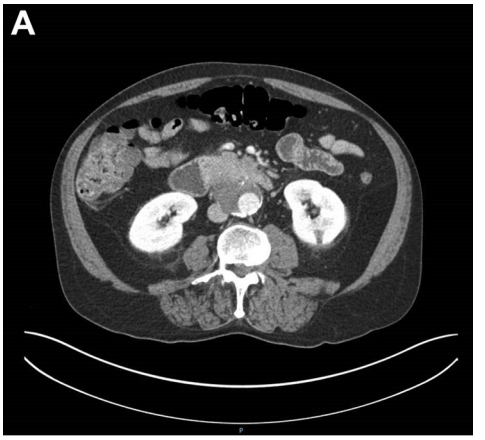
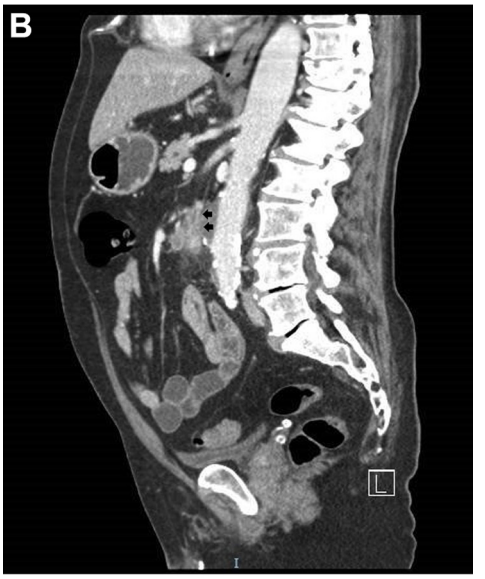
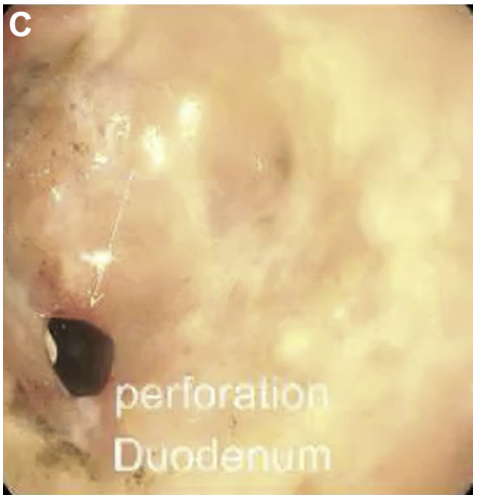
A 63-year-old man presented to the emergency department with a 3-day history of worsening midepigastric pain and intolerance to oral intake. He denied hematemesis, hematochezia, or other gastrointestinal symptoms. Physical examination showed mild midepigastric tenderness with palpation but was otherwise unremarkable. Computed tomography scan demonstrated a 2.1- × 3.4- × 1.9-cm fluid collection along the undersurface of a thickened duodenum wall, inseparable from the anterior wall of a 5- × 3.7-cm infrarenal saccular abdominal aortic aneurysm (*A* and *B*/Cover). There was no evidence of free air. Subsequent esophagogastroduodenoscopy showed abnormal mucosa vs possible mass along with a perforation of the third portion of the duodenum (*C*). He was urgently taken to the operating room and found to have gross contamination from intestinal fluid on entry, along with a perforation of the posterior medial aspect of the second portion of the duodenum into the retroperitoneal space adjacent to the infrarenal aorta. This perforation apparently caused a saccular mycotic aortic aneurysm of the medial aortic wall in the area, with evidence of aortic wall inflammation and thinning representing impending rupture. Given the patient's intraoperative hemodynamic stability, the decision was made to perform pancreaticoduodenectomy and open abdominal aortic aneurysm repair with rifampin-soaked Dacron graft and omental wrap,[1,2] followed by a staged Whipple reconstruction 2 days later. Final pathologic examination showed a 4-cm moderately differentiated pancreatic ductal adenocarcinoma with extension through the duodenum wall. One of 20 lymph nodes was positive (T2N1). Margins were uninvolved. The classic Cooper triad for aortoenteric fistula, consisting of upper gastrointestinal bleeding, abdominal pain, and palpable abdominal mass, occurs in only 11% of all aortoenteric fistula cases. Primary aortoenteric fistula due to pancreatic cancer has an extremely rare occurrence (<1%) with poor prognosis.[3] This patient had a prolonged postoperative course in the intensive care unit because of intractable intra-abdominal sepsis. He subsequently died 4 months after operation.

The consent to publish this case report and all associated imaging was obtained from the patient's family.







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