Recurrent Pancreatitis Caused by a Huge Intraluminal Duodenal Diverticulum

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A 34-year-old man presented with abdominal pain radiating to the back. He reported several similar episodes in the preceding years and consecutively had lost 22 pounds in weight. The patient denied alcohol abuse. Laboratory investigations suggested biliary pancreatitis (lipase 4580 U/L, bilirubin 2.4 mg/dl, γ-GT 317 U/L). Physical examination was unremarkable except for moderate epigastric tenderness. ERCP had to be terminated due to food impaction in the duodenum. Abdominal CT demonstrated a huge mass of the small bowel, mimicking invagination (Fig. 1) and a dilated common bile duct (arrow). Duodenoscopy revealed a huge diverticulum adjacent to the Vater’s papilla. A small bowel series showed the contrast agent sparing the diverticulum (Fig. 2). During further course, the pancreatitis resolved completely. The patient underwent a partial pancreaticoduodenectomy with pancreaticojejunostomy. Histopathologic analysis revealed an intraluminal duodenal diverticulum measuring 7.5 x 5 cm. The patient recovered quickly and has remained free of symptoms since then after a one-year follow-up.

Duodenal diverticula are common abnormalities seen in 12-27% of endoscopic [1] and 1-6% of upper gastrointestinal contrast studies [2]. Duodenal diverticula are classified into extra- or intraluminal. The exact mechanism of the development of the rare intraluminal duodenal diverticula is unknown. Most authors believe they are congenital abnormalities. Successful recanalization of the solid duodenum during human development can be impaired and initial membranous web-like lesions may elongate during adulthood, creating a pulsion-type intraluminal diverticulum [3, 4]. These lesions typically remain asymptomatic. We assume that in this peculiar case recurrent accumulation of intestinal material in the diverticulum lead to its obstruction or distortion and the consecutive compression of the biliary and pancreatic duct causing recurrent attacks of acute pancreatitis. The possibility of an intraluminal duodenal diverticulum should be kept in mind in the differential diagnosis of acute pancreatitis.

References