Fig. 3. Jejunojejuno anastomosis: the retrieval balloon catheter can be stationed in the afferent loop (the middle cave in this view) as a guide to avoid the duodenoscope.

contrast medium to explore the precise entrance of the afferent loop. It should be emphasized that the image we saw on balloon-assisted enterography was more helpful for ERCP in patients after GI surgery. It helps the endoscopist see the altered structure clearly and allows the endoscope to move more smoothly along the digestive duct and minimize accidental injury to the intestinal wall (Fig. 2). For jejunojejuno anastomosis, the retrieval balloon catheter can also be stationed in the afferent loop as a guide to keep the duodenoscope from sliding out of the right loop (Fig. 3).

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Portal venous gas after colonoscopy in two patients with Crohn's disease

To the Editor:

Portal venous gas (PVG) seen on abdominal imaging is often associated with serious clinical entities that have high morbidity and mortality.[1] Noniatrogenic causes of PVG include mesenteric ischemia and infarction, trauma, and inflammatory bowel disease.[1] Iatrogenic causes include biliary gas after ERCP with sphincterotomy, liver biopsy, and hepatic artery embolization. We present 2 cases of PVG after colonoscopy in 2 patients with Crohn's disease and colonic strictures.

A 52-year-old woman with an 11-year history of Crohn's disease, taking 6-mercaptopurine and adalimumab, underwent colonoscopy. The colonoscopy was performed with propofol sedation and revealed a descending colonic stricture with mild inflammation that was unable to be traversed with a pediatric colonoscope. In the recovery room, the patient had a single episode of emesis and transient abdominal pain that resolved without treatment. A CT enterography was performed to assess the length of the stricture and determine disease activity. It demonstrated thickening of a long segment of colon extending from the hepatic flexure to the descending colon with associated hyperenhancement of the mucosa (Fig. 1). There was significant narrowing at the splenic flexure and descending colon. There was mild to moderate PVG without evidence of free intraperitoneal air or mesenteric venous gas (Fig. 2). The patient's vital signs and the results of laboratory studies were normal. She was discharged with prescribed antibiotics because she was immunosuppressed and did well. She subsequently underwent elective colonic resection.

Fig. 1. Patient 1: colonic thickening with associated hyperenhancement.

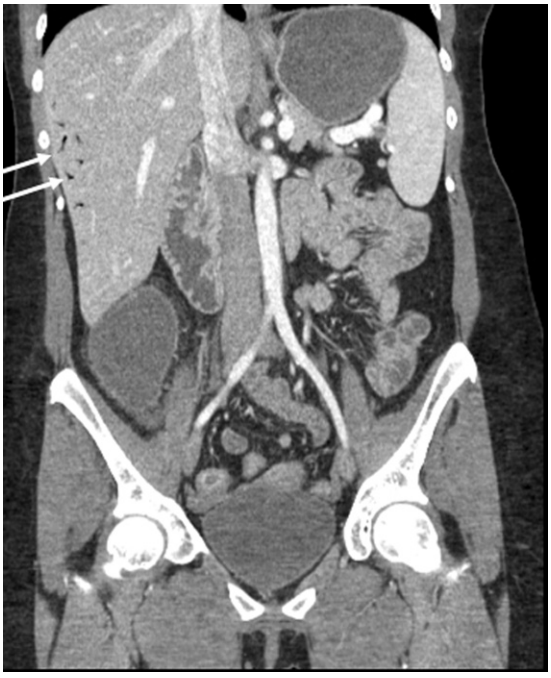

Fig. 2. Patient 1: portal venous gas without evidence of free air.

A 52-year-old woman with a 7-year history of Crohn's disease, taking mesalamine and prednisone, underwent colonoscopy for abnormal colonic findings on CT scan. The colonoscopy was performed with conscious sedation and revealed a stenotic region in the distal transverse colon that could be traversed by use of the pediatric colonoscope. The area just distal to the stenosis was edematous, with multiple pseudopolyps present. The mucosa within the stenosis was erythematous, friable, and ulcerated. In the recovery room, the patient experienced shaking chills and a low-grade fever. A CT scan of the abdomen was performed to rule out perforation and demonstrated a long segment of wall thickening in the distal transverse colon with associated sinus tracts (Fig. 3). PVG was identified, without evidence of free intraperitoneal air (Fig. 4). The patient was admitted to the hospital and received intravenous antibiotics for presumed bacteremia. She had fever for 24 hours. The results of laboratory studies were normal, and blood cultures were negative. She was discharged with prescribed antibiotics and did well. She subsequently underwent elective colonic resection.

Fig. 3. Patient 2: colonic thickening with associated sinus tracts.

Fig. 4. Patient 2: portal venous gas without evidence of free air.

Portal venous gas has a reported mortality rate of approximately 75% inasmuch as it is commonly associated with bowel ischemia.[2] Exploratory laparotomy is performed when the patient is seriously ill. However, with better imaging modalities we now know that PVG can be seen in a wide range of clinical conditions. Several case series have shown that urgent surgery is not indicated in healthy patients who have a risk factor for the development of PVG (ie, recent instrumentation).[3] In our patients, mucosal defects were already present from active Crohn's disease. The bowel distention created during colonoscopy likely caused the presence of PVG seen on CT.

In general, PVG on abdominal imaging typically portends poor outcomes. Our cases demonstrate that PVG can be an incidental finding when seen immediately after colonoscopy in patients with Crohn's disease and can be managed expectantly.

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