A 79-year-old uremic patient under regular hemodialysis was hospitalized with severe postprandial epigastric pain since the previous evening. The pain was characterized as sharp and persistent. He had undergone a Billroth II gastrectomy 35 years prior for a bleeding gastric ulcer. He had no history suggestive of atherosclerotic disease, and an upper endoscopy performed one year earlier did not indicate chronic bowel ischemia. Upon examination, the patient appeared to be in severe and diffused pain. His abdomen was board-like with marked direct epigastric tenderness but no rebound tenderness. The bowel sounds were hypoactive. An upright abdominal x-ray showed no free air. An upper endoscopy was arranged to rule out peptic ulcers and demonstrated that the mucosa of the stomach remnant was hyperemic, but the intestinal mucosa below the gastrojejunal anastomosis was pale (Fig. 1A). The clear color demarcation between the stomach and jejunum suggested occlusion or interruption of the superior mesenteric artery. An operation was performed due to the persistent abdominal pain.

During the operation, a strangulated internal hernia was noted in the small bowel, which was purple and congested (Fig. 1B). Release of the hernia restored adequate circulation, and resection was unnecessary. The pancreaticoduodenal arcades and dorsal pancreatic artery are collaterals between the superior mesenteric artery and celiac trunk. When they are transected during gastrectomy, it creates a watershed territory between the superior mesenteric and celiac arteries. The patient’s pale jejunal mucosa suggested ischemic injury confined to the inner layers of the bowel wall, an indicator of early hypoperfusion due to strangulation. Endoscopic findings in ischemic enteritis are not absolutely pathognomonic, however, so there should be a low threshold for surgical intervention to avert intestinal gangrene.

Reference