Transient ischemic small-bowel ulcers secondary to acute superior mesenteric artery branch thromboembolism diagnosed by double balloon enteroscopy

Fig. 1 White arrow indicates the occlusion of superior mesentric artery branch artery on computed tomography angiography.

Fig. 2 Upright abdominal radiograph shows distended featureless loops of small bowel, with wall thickening and separation of the bowel loops.

Fig. 3 Double balloon enteroscopy revealed a liner ulcer (15 – 20 cm in length) in the mid jejunum.

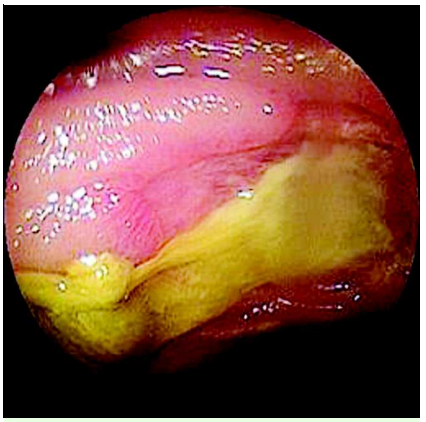

Fig. 4 Double balloon enteroscopy revealed a geographic ulcer in the lower jejunum.

Acute insufficiency of mesenteric arterial blood flow has many etiologies but the mechanism of injury is the same regardless of the cause. Acute mesenteric ischemia is generally diagnosed with computed tomography (CT) imaging [1]. It results in mortality rates exceeding 60 %. Many cases require urgent surgery for the removal of necrotic bowel [2]. Endoscopic images of the ischemic small bowel have rarely been reported [3]. We present a case of multiple jejunal ulcers secondary to acute superior mesentric artery (SMA) branch thromboembolism diagnosed by double balloon enteroscopy.

A 60-year-old man with a history of atrial fibrillation presented with acute onset of watery diarrhea and vomiting. He underwent abdominopelvic CT with contrast, which showed the total occlusion by thromboembolism of the SMA branch but no small bowel ischemia (**Fig. 1**). After admission, he complained of severe abdominal pain and no bowel movement. Upright abdominal radiography revealed distended featureless loops of small bowel with wall thickening (**Fig. 2**). To investigate the cause, we performed double balloon enteroscopy (DBE) through the mouth. In the mid to lower jejunum, many ulcers of various shapes including geographic, liner or coin-like form were found but no bleeding or coagula. No endoscopic therapy was performed. Each ulcer was characteristic of a skip lesion (**Fig. 3** and **4**). The biopsies of the ulcers histopathologically indicated ischemic enteritis. A diagnosis of ischemic jejunitis due to SMA branch thromboembolism was made. Shower thromboembolism was considered to have contributed to the skip ulcers. Laboratory findings, stool culture, and echocardiogram were within normal limits. The patient was conservatively treated with intravenous fluids and bowel rest and was given warfarin to prevent further embolisms. The patient was stabilized and had no further symptoms. Follow-up DBE revealed complete healing of the ulcers. He remains on warfarin and has not experienced further episodes of abdominal pain or nausea.

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