Single-balloon enteroscopy-guided hemostasis of an anastomotic ulcer in a patient with simultaneous enteric-drained pancreas-kidney transplant



Fig. 1 Actively bleeding anastomotic ulcer.



Fig. 2 Hemostasis with endoclips.



Fig. 3 Donor duodenum.

Enteric-drained pancreas transplantations have been increasing [1]. Access to the surgical anastomosis is desirable for monitoring of rejection and management of bleeding complications. A 34-year-old diabetic man with nephropathy requiring hemodialysis underwent simultaneous enteric-drained pancreas-kidney transplantation. On postoperative day 6, he developed hematochezia. Physical examination revealed red blood in the rectum. The hematocrit declined from 35% to 23%

within 24 hours. After volume resuscitation, esophagogastroduodenoscopy and colonoscopy were performed, demonstrating esophagitis, sigmoid diverticulosis, and old blood. The terminal ileum was evaluated but the surgical anastomosis was not reached. The next day, hematochezia recurred, with a drop in hematocrit from 27% to 23%. A retrograde singleballoon enteroscopy (SIFQ180; Olympus Inc., Tokyo, Japan) with a disposable overtube (ST-SB1, Disposable Sliding Tube; Olympus) was performed. The duodenal stump-ileal anastomosis was reached, approximately 60 cm proximal to the ileocecal valve, revealing active, spurting bleeding from a visible vessel within an anastomotic ulcer (Fig. 1). Three endoclips (QuickClip2; Olympus) were placed at the bleeding site, with successful hemostasis (Fig. 2). The donor duodenum could be easily visualized (Fig. 3). The patient had no further bleeding episodes. The use of enteric-drained pancreas transplantation for treatment of diabetes mellitus has been limited by the frequent occurrence of complications. Repeat laparotomy is required in up to 37% of patients within 3 months of operation [1]. Anastomotic ulcers have been reported in 11.5% of patients; the risk is higher for the Roux technique [2]. Angiography may be implemented to manage such bleeding complications [3], but contrast nephropathy remains a risk. The single-balloon system was developed as an alternative to explore the small intestine [4]. This technique is particularly attractive because it can assess areas of the small intestine not evaluated by standard endoscopic instruments. Single-balloon enteroscopy may be used for monitoring pancreas rejection and management of postoperative anastomotic bleeding.

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