Multiloop traction method during endoscopic hemostasis for post-sphincterotomy bleeding of the peridiverticular papilla

Periampullary diverticulum (PAD) is considered a risk factor for difficult biliary cannulation during endoscopic retrograde cholangiopancreatography (ERCP) because it makes the papilla unidentifiable [1]. Applying a traction force near the papilla has been reported to be effective in PAD biliary interventions [2].

We report a successful case of endoscopic hemostasis in post-sphincterotomy bleeding, using the multiloop traction method (M-loop method), in a patient with PAD [3] (Video 1).

A 79-year-old man, taking direct oral anticoagulants (DOACs) for atrial fibrillation, presented with symptomatic common bile duct stones. His DOAC medication was temporarily discontinued on the day of the procedure. A successful endoscopic sphincterotomy (ES), with complete stone removal, was achieved.

Post-ES bleeding was noted 4 days after the procedure (Fig. 1). Achieving endoscopic hemostasis was challenging because the bleeding source was covered with duodenal mucosal folds. The M-loop method was used to locate and expose the bleeding source (Fig. 2). A SureClip (Micro-Tech, Nanjing, China), attached to a multiple-loop-thread, was deployed to cover the mucosal fold. Additional clips were hooked onto the free loop and attached to the oral side of the duodenal wall. A traction force was generated to pull the duodenal mucosa covering the papilla upward. The bleeding point was sufficiently exposed (Fig. 3, Fig. 4). A pancreatic stent was placed to avoid post-ERCP pancreatitis. Successful hemostasis was achieved with endoscopic coagulation, using a Coagrasper (Olympus, Tokyo, Japan) (Fig. 5). The threads used in the M-loop method were cut after hemostasis. Rebleeding was not observed after restarting DOAC therapy.

PAD has been reported to be a risk factor for post-ES bleeding [4]. Hemostasis for post-ES bleeding may be challenging in patients with PAD due to the deviation of the papilla’s position. Traction, using the M-loop method, provides adequate exposure of the papilla, facilitating hemostasis in patients with post-ES bleeding.

Competing interests

A. Katanuma has received honoraria as lecture fee from Olympus Co., Tokyo, Japan. All other authors declare that they have no conflict of interest.
The authors

Kosuke Iwano, Haruka Toyonaga, Toshifumi Kin, Tatsuya Ishii, Akio Katanuma
Center for Gastroenterology, Teine Keijinkai Hospital, Sapporo, Hokkaido, Japan

Corresponding author

Kosuke Iwano, MD
Center for Gastroenterology, Teine Keijinkai Hospital, 1-40, 12-chome, 1-jou, Maeda, Teine-ku, Sapporo 006-8555, Hokkaido, Japan
ksk.own@gmail.com

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