Successful hemostasis of a parapapillary diverticular hemorrhage by the retroflexion technique in the descending part of duodenum

In endoscopic procedures, the retroflexion technique is often useful to overcome difficult situations [1–5]. Here, we report a successful hemostasis case of parapapillary diverticular hemorrhage by the retroflexion technique in the descending part of duodenum.

An 82-year-old man was admitted to our hospital for treatment of tarry stools and underwent an urgent endoscopy. Bleeding from a parapapillary diverticulum was suspected, but the bleeding point could not be identified by either a forward-viewing or side-viewing endoscope. It was judged that spontaneous hemostasis had been achieved, but rebleeding was suspected because anemia progressed gradually. A few days later, endoscopy was performed again (▶Video 1).

▶Video 1 Successful hemostasis of a parapapillary diverticular hemorrhage by the retroflexion technique in the descending part of the duodenum.

▶Fig. 1 Illustration of the forward-viewing approach to the parapapillary diverticular hemorrhage. We could not clearly identify the bleeding point.

▶Fig. 2 Illustration of inversion maneuvering at the inferior duodenal angle. We carefully inverted the endoscope at the inferior duodenal angle.

▶Fig. 3 Illustration of the retroflexion technique at the parapapillary diverticulum with tapered hood. We were able to enter the parapapillary diverticulum and identify the bleeding point.
Like the initial endoscopy, we could see blood flow from the parapapillary diverticulum, but the bleeding point was invisible (Fig. 1). We previously reported a successful case in which endoscopic mucosal resection for a duodenal adenoma was performed using the retroflexion technique [1], and we presumed that a similar approach might be helpful. We changed the normal tip hood to a therapeutic tapered hood to facilitate entry into the diverticulum and inverted the endoscope at the inferior duodenal angle (Fig. 2). Consequently, we could successfully approach the diverticulum and clearly identify the bleeding point (Fig. 3, Fig. 4). Because of the narrow working space, unnecessary clip placement had to be avoided. Therefore, a re-openable clip was used to ensure that the bleeding point was definitely grasped before the clip was placed. Effective hemostasis was achieved with only one clip (Fig. 5), and the patient was discharged without re-bleeding thereafter. In this case, because the parapapillary diverticulum opened toward the anal side, the bleeding point was invisible by the forward-viewing approach. However, the retroflexion technique dramatically improved the visibility of the bleeding point. The retroflexion technique may be one way to overcome such difficult situations, although careful endoscopic maneuvering is required since the duodenal lumen is narrow.

Competing interests
The authors declare that they have no conflict of interest.

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