Duodenal endoscopic submucosal dissection (ESD) is difficult due to insufficient mucosal elevation, because of the coarse submucosal layer [1]. We report on the “water pressure method” for duodenal ESD.

We perform duodenal ESD with a small-caliber-tip transparent (ST) hood and DualKnifeJ (Olympus, Tokyo, Japan). Insertion of the ST hood under the mucosal flap is a crucial step, as it provides good countertraction to the submucosal layer and good visualization of the operative field. Water pressure by waterjet function of the endoscope helps insertion of the ST hood under the mucosal flap (▶Fig. 1; ▶Video 1). Normal saline with a minimum amount of dimethicone is used for the waterjet, rather than water, because normal saline includes electrolytes. With carbon dioxide insufflation, the visual field at the tip of ST hood is small and far. However, water immersion increases the visual field and acts as a magnifier (▶Fig. 2). This improved visualization allows the tissue to be cut more precisely. In conclusion, the “water pressure method” is simple and useful for duodenal ESD.

Endoscopy_UCTN_Code_TTT_1AO_2AG

Competing interests

None

▶Fig. 1 The water pressure method for duodenal endoscopic submucosal dissection (ESD). a ESD was performed with a small-caliber-tip transparent (ST) hood and DualKnifeJ (Olympus, Tokyo, Japan). The waterjet function of the endoscope was used. b The water pressure helps insertion of the ST hood under the mucosal flap.

▶Video 1 The water pressure method for duodenal endoscopic submucosal dissection (ESD). ESD was performed with a small-caliber-tip transparent (ST) hood and DualKnifeJ (Olympus, Tokyo, Japan). The water pressure helps insertion of the hood under the mucosal flap. Water immersion increases the visual field and acts as a magnifier.
The Authors

Naohisa Yahagi, Toshihiro Nishizawa, Motoki Sasaki, Yasutoshi Ochiai, Toshio Uraoka
1 Division of Research and Development for Minimally Invasive Treatment, Cancer Center, Keio University School of Medicine, Tokyo, Japan
2 Department of Gastroenterology and Hepatology, Keio University School of Medicine, Tokyo, Japan
3 Department of Gastroenterology, National Hospital Organization, Tokyo Medical Center, Tokyo, Japan

Corresponding author

Naohisa Yahagi, MD, PhD
Division of Research and Development for Minimally Invasive Treatment, Cancer Center, Keio University School of Medicine, 35 Shinnomachi, Shinjuku-ku, Tokyo 160-8582, Japan
Fax: 81-3-53633967
yahagi-tky@umin.ac.jp

Reference


Bibliography

DOI https://doi.org/10.1055/s-0043-113556
Published online: 31.7.2017
Endoscopy 2017; 49: E227–E228
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X

Fig. 2 Water immersion during duodenal endoscopic submucosal dissection. a With carbon dioxide insufflation, the visual field at the tip of the small-caliber-tip transparent hood is small and far. b Water immersion increases the visual field and acts as a magnifier.

ENDOSCOPY E-VIDEOS
https://eref.thieme.de/e-videos

Endoscopy E-Videos is a free access online section, reporting on interesting cases and new techniques in gastroenterological endoscopy. All papers include a high quality video and all contributions are freely accessible online.

This section has its own submission website at https://mc.manuscriptcentral.com/e-videos