

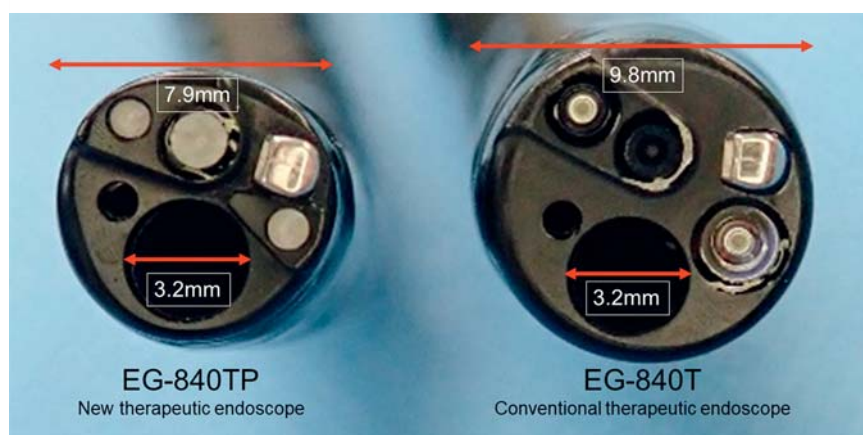
Endoscopic submucosal dissection of gastric neoplasms with severe fibrosis using a new thin-therapeutic endoscope and a dedicated conical cap

OPEN
ACCESS

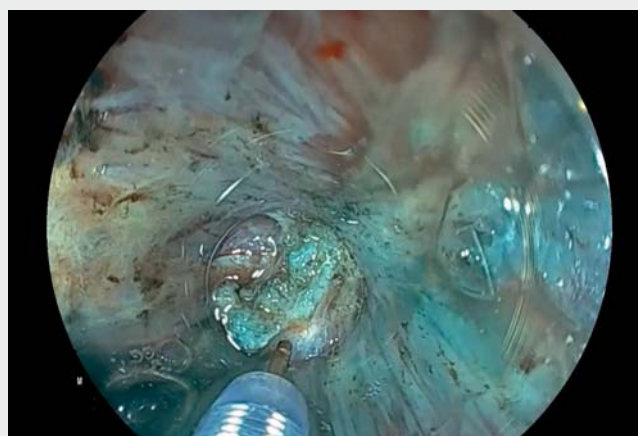
Recently, endoscopic submucosal dissection (ESD) using the pocket-creation method (PCM) has been developed as a kind of third space endoscopy. PCM enables complete dissection under the lesion before making the circumferential incision [1]. Using this method, a wide submucosal space should be created with a small entrance where a small-diameter endoscope is more desirable. A few endoscopists reported ESD using ultrathin endoscopy, but disadvantages for such a procedure have been discussed. Although the accessory channels of existing ultrathin endoscopes (EG-L580NW7, Fujifilm Co., Tokyo, Japan) have a diameter of 2.4 mm, some ESD devices such as the knife and coagulation forceps cannot be inserted through the channel because of their larger diameter [2].

The EG-840TP (Fujifilm Co.) was newly developed for endoscopic treatment as a relatively thin endoscope that has an outer diameter of only 7.9 mm but an accessory channel diameter as large as 3.2 mm (► **Fig. 1**). It also has a down angle function up to 160 degrees. A calibrated, small-caliber-tip, transparent hood (CAST hood; TOP, Tokyo, Japan) was designed to perform balloon dilation of small intestinal strictures [3]. It is transparent with a 4-mm tip diameter that can be used in ESD. PCM combined with this hood may be more effective in cases with gastric neoplasms accompanied by fibrosis [4].

We present a patient with gastric cancer with fold convergence that recurred after ESD, located in the posterior wall of the middle gastric body. ESD was performed using the PCM with the EG-840TP and a dedicated conical cap (prototype CAST hood), resulting in successful complete resection. Such a therapeutic approach is expected not only to allow precise dissection of severely fibrotic tissue but also



► **Fig. 1** The EG-840TP manufactured by Fujifilm Corporation was recently developed for endoscopic treatment as a thin endoscope that has an outer diameter of only 7.9 mm compared to 9.8 mm of a conventional therapeutic endoscope (EG-840 T); it maintains an accessory channel diameter of 3.2 mm.



► **Video 1** The procedure for the pocket-creation method with an EG-840TP and a dedicated conical cap for early gastric cancer.

to improve endoscopic maneuverability even in a narrow submucosal pocket with severe fibrosis (► **Video 1**). This endoscope may be used for third space endoscopy especially in a narrow space.

Endoscopy_UCTN_Code_TTT_1AO_2AG

Competing interests

Author HY has patents for ESD devices and double-balloon endoscopy produced by Fujifilm Corporation. Author HY and HO have a consultant relationship with the Fujifilm Corporation and has received honoraria, grants,

and royalties from the company. Author YM and YH have received honoraria from Fujifilm Corporation. HY and YH have a patent for the calibrated, small-caliber-tip, transparent (CAST) hood produced by the Top Corporation. Other authors have no financial conflicts of interest. The funding source had no role in this study.

The authors

Yoshimasa Miura¹, Hisashi Fukuda¹, Takashi Ueno¹, Yoshikazu Hayashi¹, Hiroyuki Osawa¹, Alan Kawai Lefor², Hironori Yamamoto¹.

- 1 Department of Medicine, Division of Gastroenterology, Jichi Medical University, Shimotsuke, Tochigi, Japan
- 2 Department of Surgery, Jichi Medical University, Shimotsuke, Tochigi, Japan

Corresponding author

Hironori Yamamoto, MD

Department of Medicine, Division of Gastroenterology, Jichi Medical University, 3311-1 Yakushiji, Shimotsuke, Tochigi, 329-0498, Japan
Fax: +81-285-40-6598
ireef@jichi.ac.jp

References

- [1] Miura Y, Shinozaki S, Hayashi Y et al. Duodenal endoscopic submucosal dissection is feasible using the pocket-creation method. *Endoscopy* 2017; 49: 8–14
- [2] Kikuchi D, Tanaka M, Nakamura S et al. Feasibility of ultrathin endoscope for esophageal endoscopic. *Endosc Int Open* 2021; 09: E606–E609
- [3] Hayashi Y, Yamamoto H, Yano T et al. A calibrated, small-caliber tip, transparent hood to aid endoscopic balloon dilation of intestinal strictures in Crohn's disease: successful use of prototype. *Endoscopy* 2013; 45: E373–E374
- [4] Nomura T, Sugimoto S, Oyamada J et al. GI endoscopic submucosal dissection using a calibrated, small-caliber-tip, transparent hood for lesions with fibrosis. *VideoGIE* 2021; 6: 301–304

Bibliography

Endoscopy 2023; 55: E872–E873

DOI 10.1055/a-2106-0688

ISSN 0013-726X

© 2023. The Author(s).

This is an open access article published by Thieme under the terms of the Creative Commons Attribution License, permitting unrestricted use, distribution, and reproduction so long as the original work is properly cited.

(<https://creativecommons.org/licenses/by/4.0/>)

Georg Thieme Verlag KG, Rüdigerstraße 14,
70469 Stuttgart, Germany



ENDOSCOPY E-VIDEOS

<https://eref.thieme.de/e-videos>



E-Videos is an open access online section of the journal *Endoscopy*, reporting on interesting cases

and new techniques in gastroenterological endoscopy. All papers include a high-quality video and are published with a Creative Commons CC-BY license. *Endoscopy E-Videos* qualify for HINARI discounts and waivers and eligibility is automatically checked during the submission process. We grant 100% waivers to articles whose corresponding authors are based in Group A countries and 50% waivers to those who are based in Group B countries as classified by Research4Life (see: <https://www.research4life.org/access/eligibility/>).

This section has its own submission website at

<https://mc.manuscriptcentral.com/e-videos>