

## Endoscopic submucosal dissection using a novel therapeutic thin gastroscop for a locally recurrent rectal tumor after endoluminal rectal surgery

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► **Fig. 1** The target lesion was located on the post-surgery scar at the posterior wall of the lower rectum.

The lower rectum is the part of the gastrointestinal tract that gains most benefit from minimally invasive treatment such as endoscopic resection, because invasive surgery results in such a significant decrease in quality of life [1]. However, endoscopic resection in the lower rectum is sometimes technically difficult due to the narrow lumen and steep angle of the rectal wall. Here, we report the first description of endoscopic resection in the lower rectum using a novel thin therapeutic gastroscop.

A 70-year-old woman was referred to our hospital for treatment of a recurrent rectal tumor after endoluminal rectal surgery, which was performed at a different hospital. The lesion was located on the post-surgery scar at the posterior wall of the lower rectum (► **Fig. 1**). Maneuverability of the endoscope was limited because the anal side of the lesion was within a confined space adjacent to the anal canal. Moreover, it was difficult to approach the lesion even by retroflexion because the gastroscop faced perpendicularly to the steep rectal wall. Therefore, we performed endoscopic submucosal dissection using a novel therapeutic thin gastroscop (EG-840TP; Fujifilm Corp., Tokyo, Japan), which has a thinner diameter (7.9 mm) and a wider range of down angles (160° degree) than existing therapeutic gastroscopes (► **Fig. 2**).

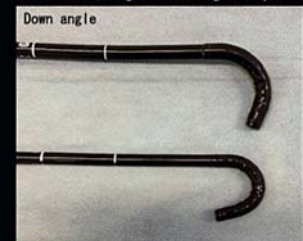
### Equipment of the novel scope

View angle (°)	140	
Diameter in head of scope (mm)	7.9	
Diameter of working channel (mm)	3.2	
Working angle (°)	Up	210
	Down	160
	Left	100
	Right	100
Water-jet function	Present	

Available in the market only in Japan, as of May 2023.



Left: EG-840TP, Right: Existing therapeutic scope



Upper: EG-840TP, Lower: Existing therapeutic scope

► **Fig. 2** Details of the novel therapeutic thin gastroscop.



► **Video 1** Endoscopic submucosal dissection of the target lesion using a novel therapeutic thin gastroscop.

The procedure was carried out with the scope in the straight position (► **Video 1**). The thin diameter of the scope was very useful even in a confined space and made it easy to enter the submucosal layer. The wider range of down angles enabled the endoscopic knife to approach at a precise depth in the sub-

mucosal layer. Finally, the lesion was resected en bloc without any adverse events.

This case suggests that the novel thin gastroscop may be an option for endoscopic resection in lower gastrointestinal tumors.

Endoscopy\_UCTN\_Code\_TTT\_1AQ\_2AC

## Competing interests

The authors declare that they have no conflict of interest.

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*Endoscopy* 2023; 55: E1097–E1098

DOI 10.1055/a-2174-5398

ISSN 0013-726X

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