

# Endoscopic Full-Thickness Resection in the Duodenum - a case series -

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## Background

Endoscopic resection of duodenal non-lifting adenomas and subepithelial tumors is challenging and harbors a significant risk of complications. We report on a novel technique for duodenal endoscopic full thickness resection (EFTR) using an over-the-scope device.

## Methods:

Data of 4 consecutive patients who underwent duodenal EFTR was analysed retrospectively. Main outcome measures were technical success, R0 resection, histologically confirmed full thickness resection, adverse events. Resections were done with a novel over-the-scope device (full thickness resection device, FTRD).

## Results

Four patients (median age: 60 y) with non-lifting adenomas (2 patients) or subepithelial tumors (2 patients) underwent EFTR in the duodenum. All lesions could be resected successfully. Mean procedure time was 67.5 min (range 50-85). Minor bleeding was observed in 2 cases; blood transfusions were not required. There was no immediate or delayed perforation. Mean diameter of the resection specimen was 28.3 mm (range 22-40). Histology confirmed complete (R0) full thickness resection in 3 of 4 cases. Endoscopic follow-up after 2 months could so far be obtained in 3 patients. In all 3 cases, the OTSC was still in place and could be removed without complications, recurrences were not observed.

## Conclusion

EFTR in the duodenum with the FTRD is a promising technique which has the potential to spare surgical resections. Modifications of the device should be made to facilitate peroral introducability. Prospective studies are needed to further evaluate efficacy and safety for duodenal resections.

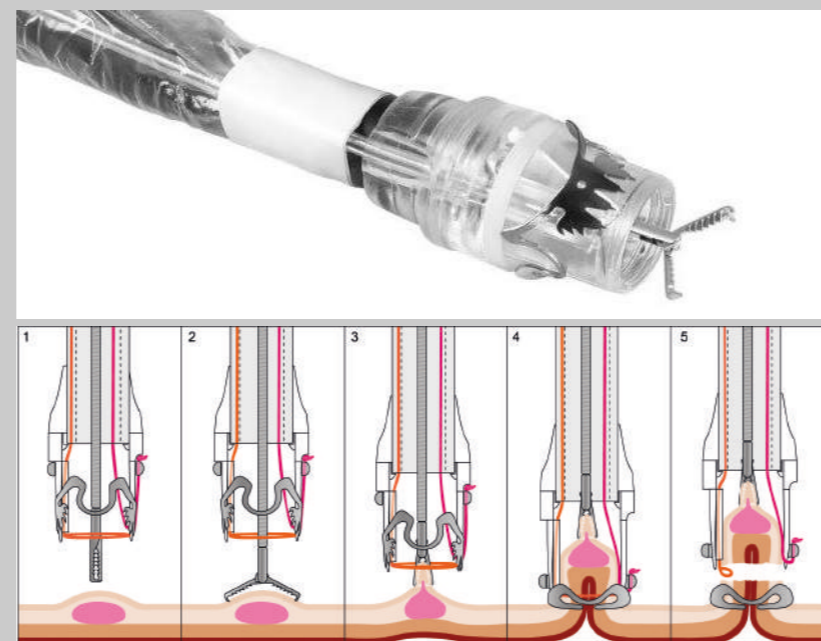


Figure 1: The FTRD (Ovesco Endoscopy)

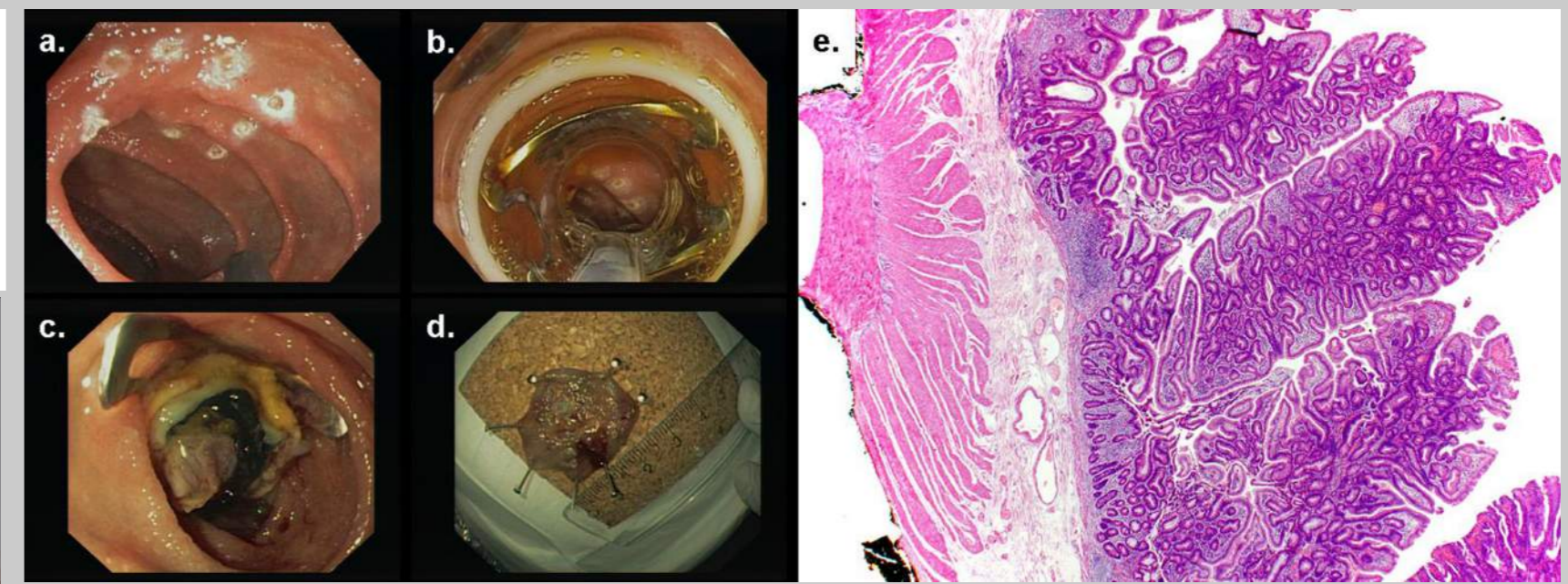


Figure 2: Full-thickness resection of a non-lifting duodenal adenoma with high-grade dysplasia

Pat. No.	Age, y	Sex	Location of lesion	Indication for EFTR	Lesion size, mm	Technical success	Time (min)	Size resection specimen (mm)	Histology	Full thickness	R0	Complications
1	74	f	Duodenal bulb (posterior wall)	SET with obstructive symptoms	14x22 (EUS)	yes	50	22x14	Inflammatory fibroid polyp	yes	yes	no
2	77	m	Third part of duodenum	Non-lifting Adenoma	15x15 (estimated)	yes	85	26x26	Adenoma with HGD	yes	yes	minor bleeding
3	35	f	Second part of duodenum	SET, histologically NET (G1)	10x10 (EUS)	yes	60	25x17	NET (G1)	yes	yes	no
4	57	f	Second part of duodenum	Adenoma with incomplete lifting sign	25x30 (estimated)	yes	75	40x22	Adenoma with HGD	yes	no	minor bleeding

Table 1: Patient characteristics and outcome



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