

SUPPLEMENTARY TABLES:

Supplementary Table 1: Technical success and R0 resection rate in patients with documented difficult resection.

	Technical success, n(%)	R0 resection, n(%)
All procedures (n=181)	162/181 (89.5)	139/181 (76.9)
Procedures with documented difficulties (n=28)	19/28 (67.9)	16/28 (57.1)
snare dysfunction (n=13)	8/13 (61.5)	8/13 (61.5)
difficult incorporation of lesion into cap* (n= 15)	11/15 (73.3)	8/15 (57.1)
Procedures without documented difficulties	143/153 (93.4)	125/153 (81.7)

*see also supplementary Table 2

Supplementary Table 2: Characteristics of patients with difficult tissue incorporation into the cap. 75% of those patients had prior endoscopic therapy.

No.	Indication	Site	Size (mm)	Prior therapy	Technical success	R0 Resection
1	Non-lifting Adenoma	Coecum	30	yes	no	no
2	Subepithelial tumor	Sigmoid	20	no	no	no
3	Non-lifting Adenoma	Sigmoid	20	yes	no	no
4	T1 carcinoma	Rectum	10	yes	no	no
5	Non-lifting Adenoma	Transv. Colon	20	yes	yes	yes
6	Adenoma at diverticulum	Sigmoid	10	no	yes	yes
7	Subepithelial tumor	Coecum	20	no	yes	yes
8	Adenoma at appendix	Coecum	30	no	yes	no
9	Non-lifting Adenoma	Coecum	5	yes	yes	yes
10	Non-lifting Adenoma	Coecum	15	yes	yes	yes
11	Subepithelial tumor	Sigmoid	20	no	yes	yes
12	Non-lifting Adenoma	Descend. Colon	20	yes	yes	no
13	Non-lifting Adenoma	Coecum	30	yes	yes	yes
14	T1 carcinoma	Rectosigmoid transition	10	yes	yes	yes
15	Non-lifting Adenoma	Rectum	15	yes	yes	no

Supplementary Table 3: Subgroup of difficult adenomas: cases with non-neoplastic final histology after EFTR. Resection was only considered successful if there was no macroscopic and histological evidence of residual lesion at 3-month follow-up. NL-A=Non-lifting adenoma

ID	Indication	Technical success	3-mon-F/U	Explanation
LB-01	Adenoma at diverticulum	yes	no residual lesion	Lesion was small at had probably been completely removed by prior extensive biopsy
D-09	Adenoma at diverticulum	yes	no residual lesion	Final histology showed hyperplastic polyp
LB-19	Adenoma at appendix	yes	no residual lesion	Final histology showed hyperplastic polyp
D-18	Adenoma at appendix	yes	no residual lesion	Lesion was small at had probably been completely removed by extensive biopsy
D-44	Adenoma at appendix	yes	no residual lesion	Final histology showed hyperplastic polyp
E-08	Adenoma at appendix	yes	no residual lesion	Final histology showed hyperplastic polyp
UL-05	Adenoma at appendix	no	residual Adenoma	Snare dysfunction leading to incomplete / unsuccessful resection
LB-20	NL-A, incompletely resected	yes	no residual lesion	Residual lesion was small at had probably been completely removed by extensive biopsy
LB-29	NL-A, incompletely resected	yes	no residual lesion	Residual lesion was small at had probably been completely removed by extensive biopsy
D-27	NL-A, incompletely resected	yes	no residual lesion	Residual lesion was small at had probably been completely removed by extensive biopsy
D-15	NL-A, incompletely resected	no	lost to F/U	Difficult incorporation into the cap due to severe scarring resulted in unsuccessful resection
FR-15	NL-A, incompletely resected	no	lost to F/U	Difficult incorporation into the cap due to severe scarring resulted in unsuccessful resection
D-11	NL-A, recurrent	yes	no residual lesion	Residual lesion was small at had probably been completely removed by extensive biopsy
D-45	NL-A, recurrent	yes	no residual lesion	Residual lesion was small at had probably been completely removed by extensive biopsy
UL-12	NL-A, recurrent	yes	no residual lesion	Residual lesion was small at had probably been completely removed by extensive biopsy
E-18	NL-A, recurrent	no	residual Adenoma	Difficult incorporation into the cap due to severe scarring resulted in unsuccessful resection
UL-03	NL-A, recurrent	no	lost to F/U	Difficult incorporation into the cap due to severe scarring resulted in unsuccessful resection
DO-04	NL-A, recurrent	no	residual Adenoma	Difficult incorporation into the cap due to severe scarring resulted in unsuccessful resection

Supplementary Table 4: Patients with adenocarcinoma

Patients with adenocarcinoma	All patients (n=29)	Known carcinoma (n=15)	Incidental carcinoma* (n=14)
R0 Resection, n (%)	21/29 (72.4)	12/14 (80.0)	9/14 (64.3)
Rx Resection, n (%)	8/29 (27.6)	3/15 (20.0)	5/14 (35.7)
Rx lateral margin only	2	1	1
Rx basal margin only	4	1	3
Rx lateral and basal margin	2	0	2
Resection classified as curative, n (%)	13/29 (44.8)	11/15 (73.3%)	2/14 (14.2%)
Resection classified as incurative, n (%)	16/29 (55.2)	4/15 (26.7 %)	12/14 (85.7%)
Rx, sm invasion < 1000 um	4	0	4
Rx, sm invasion > 1000 um	4	3	1
R0, sm invasion >1000 um	8	1	7
Follow up in patients with curative resection, n (%)			
3 month follow-up available	11	8	2
Recurrency at 3 month follow-up	0	0	0
Follow up in patients with incurative resection, n (%)			
Surgical therapy, endosc. F/U not available	11	4	9
No surgical therapy	5	3	2
- Recurrency at 3 or 6 months follow-up**	0	0	0

*Patients were initially classified as non-lifting adenomas

** Follow up including biopsy was done in 2 cases after 3 months and in 1 case after 6 months; in one case there was diminutive residual adenoma which was removed with a forceps; there was no residual carcinoma

Supplementary Table 5: Characteristics of patients with perforation

No.	Indication	Prior treatment	Site	Techn. Difficulties	Time of Perforation	Cause of perforation	Further therapy
1	T1 carcinoma	no	Transverse colon	no	acute	Clip not released	Closure with TTS-Clips
2	Non-lifting adenoma	yes	Ascending colon	no	acute	Clip not released	Closure with TTS-Clips
3	Non-lifting adenoma	no	Rectosigmoid transition	no	acute	Clip not released	Closure with OTSC
4	Subepithelial tumor	no	Upper Rectum	no	acute	Clip not released	Closure with TTS-Clips
5	Adenoma at diverticulum	no	Sigmoid	no	acute	Clip not released	Surgery
6	Non-lifting adenoma	no	Ascending colon	snare dysfunction	delayed	Thermal damage	Surgery