

Background

In recent years, the use of Endoscopic Submucosal Dissection (ESD) to resect non-polypoid lesions ≥ 20 mm in diameter has become widespread in Japan. However, ESD can be time consuming to perform, requires inpatient care, and is associated with higher complication rates and cost. Therefore it is critical to select the appropriate lesions for ESD. We wished to know if patients with Lateral Spreading Tumor (LST) > 20 mm can have a standardized treatment that is based on EMR in an outpatient clinic.

Objective

We included 115 non-polypoid and sessile lesions ≥ 20 mm that were identified at private clinic, the Takahiro Fujii Clinic (TFCL) between July 2003 and October 2015.

These patients had a standardized management plan: all patients with lesions between 20 to 30mm, except those with LST-NG, undergo EMR. Larger lesions that could be treated by EMR were also treated using the same technique. Other lesions were referred. The clinic has no inpatient beds, while the National Cancer Center Hospital (NCCH) is tertiary hospital.

Results

Of 115 non-polypoid lesions measuring > 20 mm, 98 were between 20-30 mm; 8 were between 31-40 mm, and 9 were > 41 mm. Of the 115 lesions, 93 were successfully treated at TFCL (En bloc EMR = 26; and piecemeal EMR [P-EMR] = 67) and 22 were treated at NCCH (P-EMR = 6; ESD = 16). Of all lesions treated at TFCL, 91.8% (90/98) were 20-30 mm, 37.5% (3/8) were 31-40 mm, and 0% (0/9) were ≥ 41 mm (Figure 1).

Of note, the 90 lesions 20-30 mm treated at TFCL were classified in terms of their morphological/histological diagnosis, as serrated lesions (n = 27; SSA/P, 22; TSA, 2; and LHP, 3), Is/Ila lesions (n = 8; adenomas, 4; intramucosal cancers [M], 4), LST-G lesions (n = 23; adenomas, 8; M, 14; and submucosal cancers [SM], 1), and 32 LST-NG lesions (Flat elevated [FE] type 20; adenoma, 11; M, 7; SM, 2) (Pseudodepressed [PD] type 12; adenoma, 3; M, 5; SM, 4) (Figures 2 and 3).

Of these 90 lesions, 56 lesions/patients were followed up post-procedurally with colonoscopy performed for a mean of 2.7 times during the mean follow-up of 27.9 months, with residual tumors found in 3 patients successfully removed with hot biopsy forceps. Of the 32 LST-NG lesions, 2 lesions/patients required open surgery, which were histologically shown to be an SM with slight invasion with poorly differentiated adenocarcinoma and an SM with massive invasion, respectively (Figure 4).

Of the complications, immediate post-procedural arterial bleeding and delayed bleeding were noted in 4 and 2 of the 90 lesions, respectively, which were all manageable with endoscopic hemostasis (Figure 4). Seven lesions 20-30 mm treated with ESD were diagnosed as LST-G lesions (n = 2; M, 2) and LST-NG lesions (n = 5; adenoma, 1; M, 1; and SM, 3), with additional open surgery required for 1 LST-NG lesion (SM with massive invasion) (Figures 3 and 4).

There was no difference in the distribution of non-polypoid neoplastic lesions between those treated with EMR at TFCL and those treated with ESD at NCCH (Figure 5).

Figure 1 Procedures used for endoscopic resection for large, non-polypoid neoplastic lesions

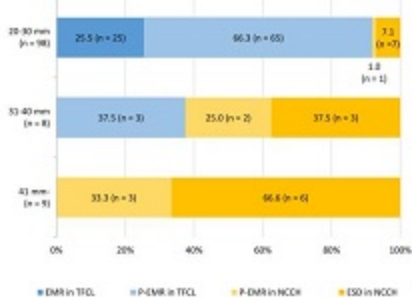


Figure 2 Morphological type <Non-polypoid neoplastic lesions 20-30 mm>

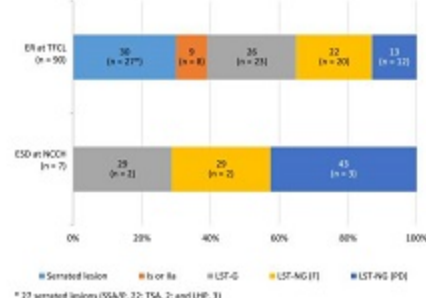


Figure 3 Morphological/Histological type <Non-polypoid neoplastic lesions 20-30 mm>

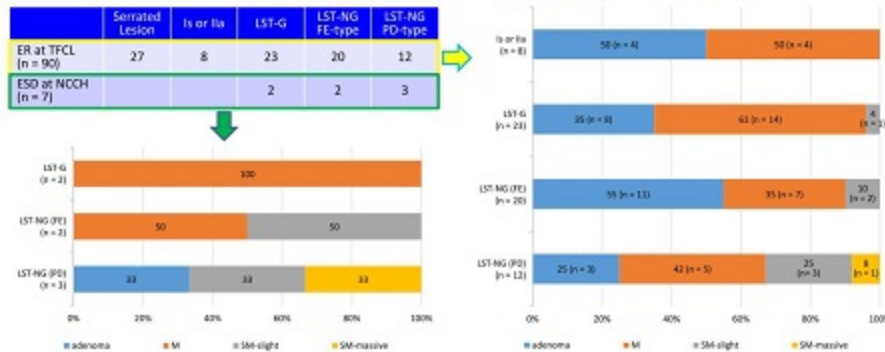


Figure 4 Post-procedural complications and follow-up <Non-polypoid neoplastic lesions 20-30 mm at TFCL>

Complication	Serrated Lesion	Is or Ila	LST-G	LST-NG (FE)	LST-NG (PD)
Arterial bleeding	0	0	4	0	0
Delayed bleeding	1	0	1	0	0
Residual tumor	0	0	1	0	2
Additional Open Surgery	0	0	0	1*	1**

Of the complications, immediate post-procedural arterial bleeding and delayed bleeding were noted in 4 and 2 of the 90 lesions, respectively, which were all manageable with endoscopic hemostasis.

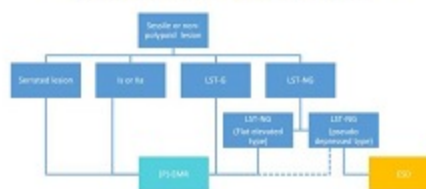
56 lesions/patients were followed up postprocedurally with colonoscopy performed for a mean of 2.7 times during the mean follow-up of 27.9 months, with residual tumors found in 3 patients successfully removed with hot biopsy forceps.

Open surgery was required in 2 lesions/patients, which were histologically shown to be an SM with slight invasion with poorly differentiated adenocarcinoma* and an SM with massive invasion**, respectively. Surgical samples showed no metastasis in these two lesions.

Figure 5 Distribution <non-polypoid neoplastic lesions 20-30 mm>



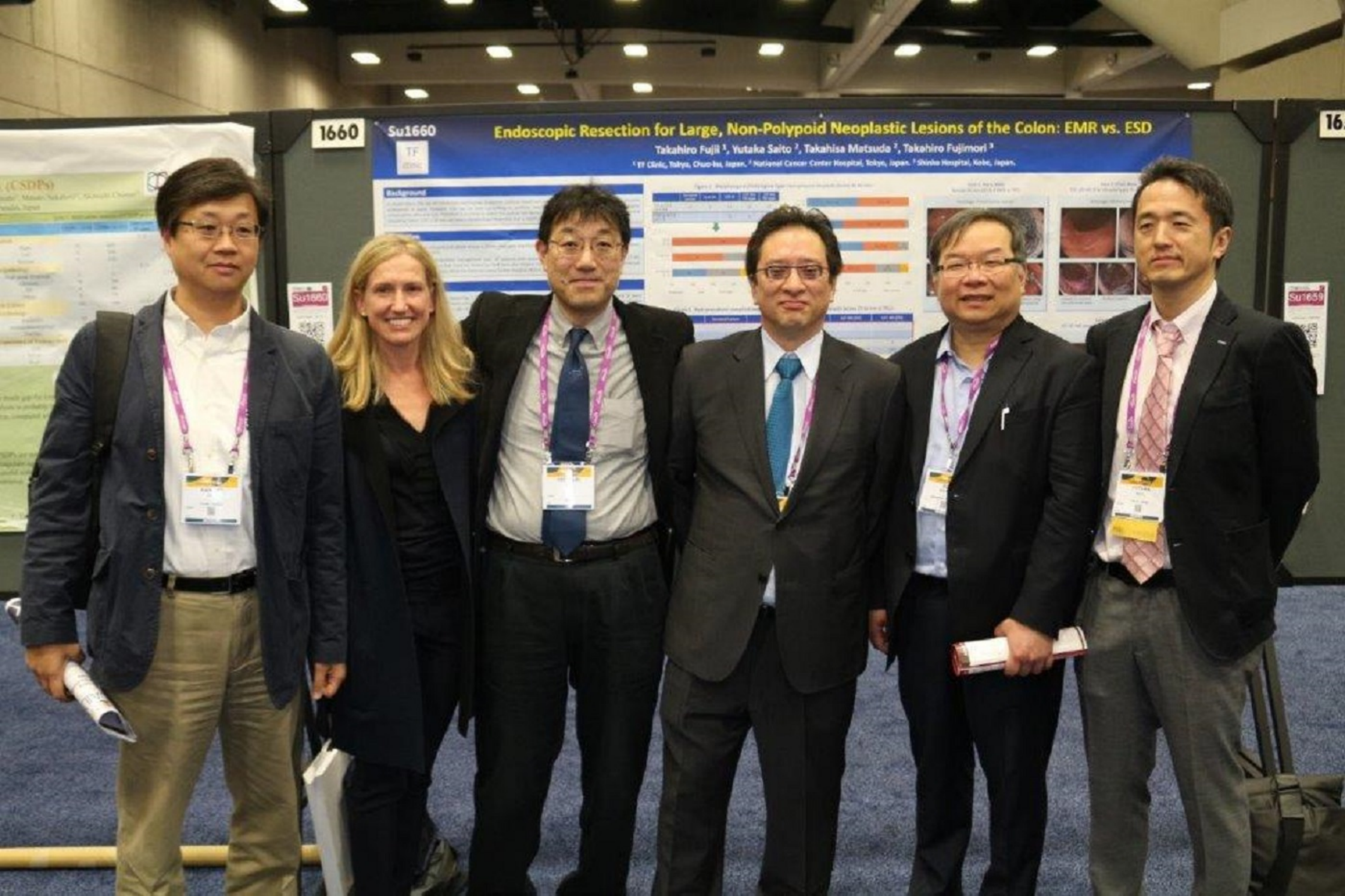
Figure 6 Decision tree in Endoscopic treatment <non-polypoid neoplastic lesions 20-30 mm>



Conclusions

Ninety lesions measuring between 20 mm and 30 mm were successfully treated with EMR and P-EMR in outpatient settings. En bloc resection with ESD may be indicated for LST-NG lesions measuring 20 mm or greater, while EMR or P-EMR in an outpatient setting may be indicated for all lesions of 30 mm or smaller, except LST-NG (PD type) lesions greater than 20 mm.

There are no potential conflicts of interests related to this presentation.



1660

Su1660



Endoscopic Resection for Large, Non-Polypoid Neoplastic Lesions of the Colon: EMR vs. ESD

Takahiro Fujii¹, Yutaka Saito², Takahisa Matsuda³, Takahiro Fujimori¹

¹ EF Clinic, Tokyo, Chuo-ku, Japan, ² National Cancer Center Hospital, Tokyo, Japan, ³ Shinkei Hospital, Kobe, Japan.

Background

Background text describing the study's purpose and methods.

Parameter	EMR	ESD
Number of patients	100	100
Mean size (mm)	25	25
Complete resection rate (%)	95	98
Resection rate (%)	90	95
Resection-free survival (%)	92	95
Local recurrence rate (%)	5	3
Recurrence-free survival (%)	90	92



1661

Su1659

1660

Su1660



Endoscopic Resection for Large, Non-Polypoid Neoplastic Lesions of the Colon: EMR vs. ESD

Takahiro Fujii¹, Yutaka Sakuma¹, Takahiro Matsuda², Takahiro Fujimori³

¹ TF Clinic, Tokyo, Chuo-ku, Japan. ² National Cancer Center, Tokyo, Japan. ³ Shinko Hospital, Kobe, Japan.

Background

Large, non-polypoid neoplastic lesions of the colon (LST-NG) are difficult to resect with EMR. ESD is a promising technique for the resection of LST-NG. The objective of this study was to compare the efficacy and safety of EMR and ESD for the resection of LST-NG.

Objective

The objective of this study was to compare the efficacy and safety of EMR and ESD for the resection of LST-NG.

Results

Of 120 patients who underwent EMR or ESD for LST-NG, 60 patients were treated with EMR and 60 patients were treated with ESD. The mean size of the lesions was 20 mm for the EMR group and 25 mm for the ESD group. The resection rate was 100% for both groups. The complication rate was 16.7% for the EMR group and 16.7% for the ESD group.



Lesions measuring between 20 mm and 50 mm were successfully treated with EMR in an outpatient setting. In-hospital resection with ESD may be indicated for LST-NG lesions 50 mm or greater, while EMR or P-EMR in an outpatient setting may be indicated for 20 mm or smaller, except LST-NG (PD type) lesions greater than 20 mm.

Please see the general disclosure of interests related to this presentation.



Endoscopic Resection for Large, Non-Polypoid Neoplastic Lesions of the Colon: EMR vs. ESD

Takahiro Fujii¹, Yutaka Saito², Takahisa Matsuda², Takahiro Fujimori³
¹TF Clinic, Tokyo, Chuo-ku, Japan. ²National Cancer Center Hospital, Tokyo, Japan. ³Shinko Hospital, Kobe, Japan.

1660

Su1560



Background: Large, non-polypoid neoplastic lesions of the colon are often found incidentally during colonoscopy. Endoscopic resection (ER) is the preferred treatment for these lesions, but the choice between EMR and ESD remains controversial. This study compares the outcomes of EMR and ESD for large, non-polypoid lesions.



Characteristic	EMR (n=20)	ESD (n=25)
Male/Female	15/5	18/7
Mean Age (years)	68.5	69.2
Lesion Size (mm)	28.5	29.1
Lesion Type	15 LST-NG, 5 LST-IG	18 LST-NG, 7 LST-IG

Results: The overall success rate for ER was 95%. The success rate for EMR was 90%, and for ESD was 98%. The mean procedure time was 25 minutes for EMR and 35 minutes for ESD. The mean hospital stay was 2.5 days for EMR and 3.2 days for ESD.



Conclusions: Ninety lesions measuring between 25 mm and 30 mm were successfully treated with EMR and P-EMR in outpatient settings. En bloc resection with ESD may be indicated for LST-NG lesions measuring 20 mm or greater, while EMR or P-EMR in an outpatient setting may be indicated for all lesions of 30 mm or smaller, except LST-IG (PD type) lesions greater than 20 mm.

There are no potential conflicts of interest related to this presentation.