

Open and endoscopic procedure cooperative surgery (OECS) for large sized gastric submucosal tumors

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【Conclusion】

- ✓ Open and Endoscopic Procedure Cooperative Surgery (OECS) for large gastric submucosal tumors is a safe and precise technique allowing R0 resection in term of local control.

【Introduction】

- ✓ Laparoscopic Endoscopic Cooperative Surgery (LECS), particularly its application to Gastrointestinal Stromal Tumors (GISTs), facilitates precise local resection under endoscopic observation, ensuring minimal invasiveness.
- ✓ For tumors larger than 8 cm, extensive open gastrectomy is often performed due to the risk of damaging the tumor during laparoscopic manipulation.
- ✓ At our institution, we introduced OECS using LECS techniques to achieve accurate R0 resection for larger cases.

【Materials and Methods】

- ✓ Surgical techniques for OECS
 - Confirming tumor localization internally and externally, performing mucosal incision using Endoscopic Submucosal Dissection techniques
 - Placing full-thickness, circumferential lifting sutures (yellow arrows) on the outer border of the incision line to prevent tumor exposure and gastric content outflow while achieving endoscopic full-thickness resection (Figures.1 and 2).
 - Suturing and closing the defect along the short or oblique axis (Figure 3).

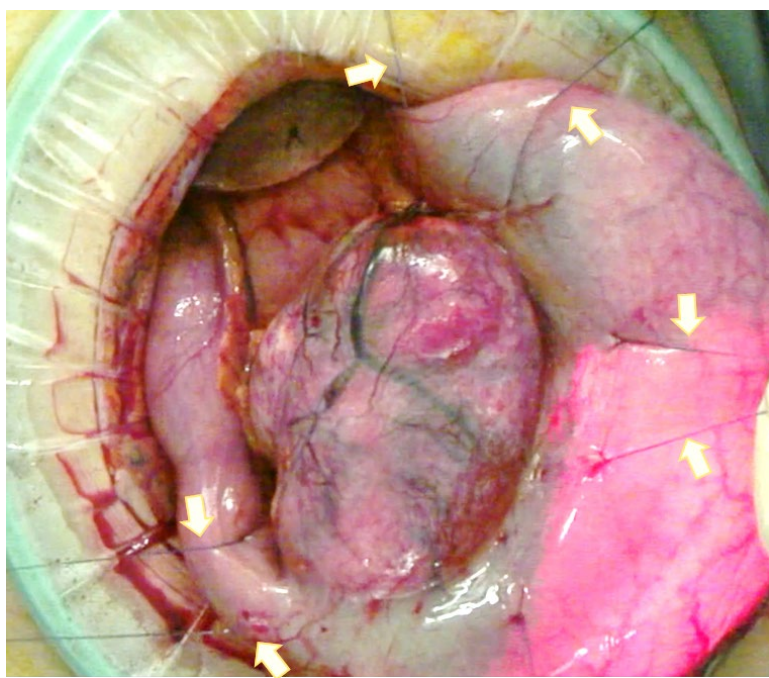


Figure.1

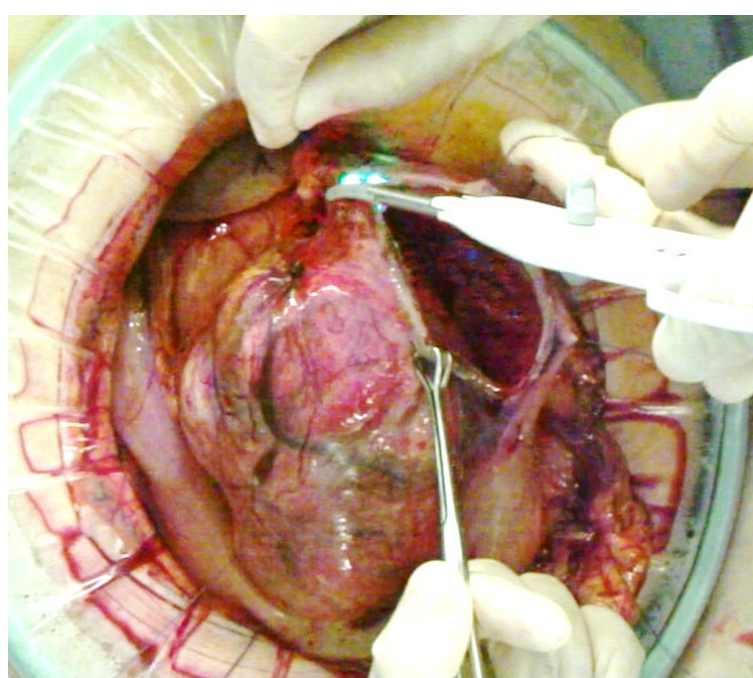


Figure.2

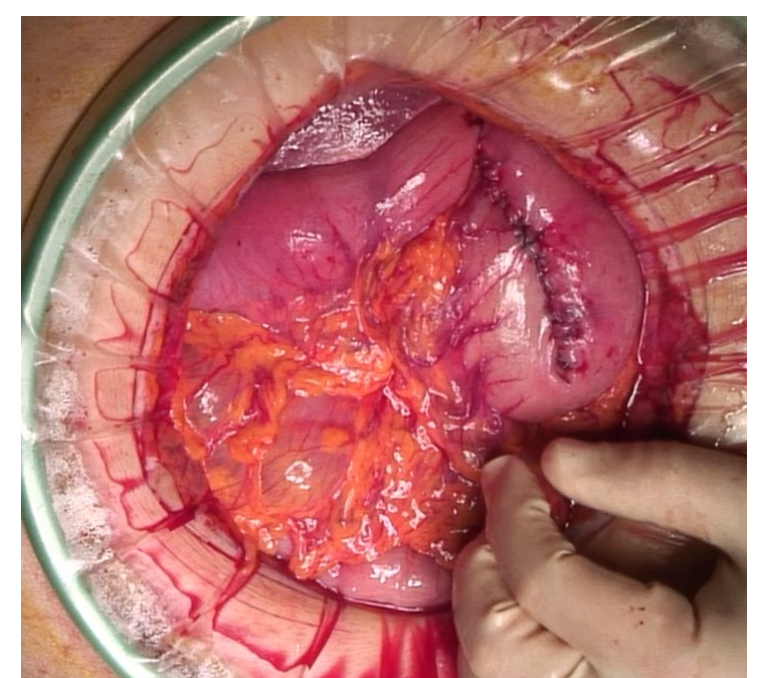


Figure.3

【Results】

Duration: July 2019 – July 2023

Patients' Background

		(n=9)
Age, median (range)	70	(48-83)
Gender (Male/ Female)	6 / 3	
Tumor location (U / M / L)	8 / 0 / 1	
Tumor size, median (range) (mm)	70	(45-130)
Preoperative chemotherapy (+/-)	1 / 8	

Early surgical outcomes

		(n=9)
Operation time, median (range) (min)	231	(116-430)
Intraoperative blood loss, median (mL)	158	(0-2765)
Combined excision	1	(diaphragm)
Resection margin (+/-)	0 / 9	
Postoperative complications	1	(delayed gastric emptying) C-D II*
Postoperative hospital stay, median (days)	8	(6-15)

*C-D; Clavien-Dindo Grade

Late surgical outcomes

		(n=9)
Pathological diagnosis (GIST/ Schwannoma)	8 / 1	
Postoperative observation term, median (range) (days)	642	(22-1468)
Recurrence (+/-)	1 / 8	