

MODERN ENDOSCOPIC TREATMENTS

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INTRODUCTION

Recently, the role of endoscopy is rapidly changing not only for diagnosis but also for treatment. Especially, endoscopic submucosal dissection (ESD) established as a standard treatment for early gastric cancer (EGC) or early esophageal cancer.

ESD FOR RECTAL CANCER

Colorectal cancer is the third most common cancer in the world, with nearly 1.4 million new cases diagnosed in 2012. From 2012 in Japan, public health insurance system started to cover ESD for adenoma or early rectal cancer. The biggest advantage of ESD is keeping QOL after treatment. Because the surgical treatment, especially artificial anus, reduce patient's QOL. But rectal ESD is much more difficult compared with gastric ESD because of multiple factors including difficulties in maintaining the endoscope position, the thin colon wall with multiple folds, luminal angulations and peristalsis. In that condition, the Japanese experts reported their experiences retrospectively about the risk. Of the 816 lesions, 767 (94%) were resected en bloc, with a median procedure time of 78 min. Perforation occurred in 2.1% and bleeding in 2.2 % [1]. The rate of complication is acceptable and less than previous reports. On the other hand, the reports about long-term prognosis are few until now. The colorectal ESD will be more popular in near future because of increasing number of patients, good advantage and less risk.

LAPAROSCOPY AND ENDOSCOPY COOPERATIVE SURGERY (LECS)

LECS is developed to combined intraluminal endoscopy and laparoscopic method for resection of the submucosal tumors². Endoscopist cut through the whole layer of gastric wall from the caudal side of the tumor. This procedure is assisted laparoscopically. Rest of the gastric wall around the tumor is dissected using ultrasonic coagulating shears and the tumor is placed in the collection

bag by laparoscopist. The defect area is generally closed by intracorporal continuous suture. The advantages of LECS are less-invasive operation and minimal resection due to the marking by endoscopy. LECS became major mainly in Japan. But nowadays it spread to some countries and they start to report the result. They reported that they treated 101 patients (tumor size ranged from 1 to 8.2 cm) and kept their cardia and pylorus for 97 patients. During a median follow-up of 28 months (1-69M), none of these patients experienced recurrence or metastasis.

In recently the indication tried to be extended to some disease. Nunobe S, et³ treated lateral spreading mucosal gastric cancer which was difficult to be treated by ESD. Fukunaga Y, et al⁴ performed LECS for 3 patients of laterally spreading colorectal tumors. This method will be more popular after many experiences in the world.

EUS GUIDED CELIAC PLEXUS NEUROLYSIS

Vilmann et al. performed first EUS-FNA in 1992 and EUS-FNA become popular now. In recently interventional EUS is getting popular. For examples, the EUS guided drainage/stenting therapy was performed for the difficult cases of ERCP.

As other interventional EUS, EUS guided celiac plexus neurolysis (EUS-CPN) is also effective for uncontrollable pain. The method is that endoscopist injects ethanol into celiac plexus under the EUS view. It is more safety than traditional methods because there are no main organ between stomach and plexus. Carlo F et al⁵ reported systematic review about EUS-guided treatment. In the review, they reported that EUS-CPN (8 studies, 283 patients) was demonstrated safe and effective in alleviating refractory pain due to pancreatic cancer. Most frequent adverse events related to EUS-CPN are represented by diarrhea, abdominal pain and hypotension; however, they are usually mild (grade I-II) and self-limiting. It is very helpful for the painful patients.

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CONCLUSION

The endoscopic treatment will become more popular and complex. We must continue to follow

the new technique safety and pay attention the evidence and risk of the patients.

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