Mucosal-Incision Assisted Biopsy for Suspicious Gastrointestinal Stromal Tumors

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Background: Tissue sampling is necessary for definitive diagnosis of GIST. Endoscopic ultrasound-guided fine-needle aspiration (EUS-FNA) has been developed for tissue sampling of suspected GIST and is generally accepted to be a very useful for the diagnosis of this lesion, but the success rate for histology does not seem to be satisfactory(62%). Recently Eikichi at al has published of retrospective review of mucosal incision assisted biopsy(MIAB) of suspected GISTs. So we performed prospective study of MIAB associated with suspicious GISTs.

Methods: To evaluate the diagnostic yield of the procedure, mucosal-incision assisted biopsy (MIAB), for the histological diagnosis of gastric gastrointestinal stromal tumor (GIST), and to know the complications of MIAB, we performed prospective study of the 14 patients with suspected gastric GIST who underwent MIAB in our hospitals.

Results: Tissue samples obtained by MIAB were sufficient to make a histological diagnosis (diagnostic MIAB) in 12 out of the 14 patients(86%), where the lesions had intraluminal growth patterns. Histologic diagnosis were GIST(8, 58%), Leiomyoma(2, 14%) and inflammatory change(7, 4%). Locations were fundus(3, 21%), cardia(3, 21%), body(5, 36%) and antrum(3, 21%). Mean size 15.3 ± 0.8. Patient had significant bleeding after MIAB but well controlled by endoscopic hemostasis.

Conclusions: Although it is generally accepted that EUS-FNA is the gold standard for obtaining biopsies for histological and cytological analysis of suspected gastric GIST, MIAB may be chosen as an alternative diagnostic modality only when the lesion has an intraluminal growth pattern. Further studies will be required to further assess MIAB, including randomized controlled trials to compare MIAB with EUS-FNA.

A Case of Endoscopic Hemostasis of Gastric Ulcer Bleeding through the Percutaneous Gastroscopy Site

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Introduction: Although successful endoscopic hemostasis can be achieved in most case of gastric ulcer bleeding, endoscopic hemostasis can’t be tried in some limited cases including esophageal stricture. We report a case of gastric ulcer bleeding that achieved successful endoscopic hemostasis through the percutaneous gastroscopy site in the patient with esophageal stricture.

Case: A 46-year-old man was in a bed-ridden state for 7 years due to cervical spine injury caused by traffic accident. After operation (C-spine discectomy and interbody fusion), percutaneous endoscopic gastroscopy (PEG) tube insertion was performed. He underwent first PEG tube insertion in other hospital under endoscopic visualization (in medical records). But upper esophageal stricture had progressed after operation, whenever inadvertent tube removal was occurred, tube replacement was performed using balloon replacement tube (PEG-24-BRT-S; Wilson-COOK Medical, USA). After last replacement of the PEG tube 1 year ago, he was referred to our hospital with a 1-day history of hematemesis. Because of upper esophageal stricture, endoscopic examination was not available through trans-esophageal route. Thus endoscopy was performed through trans-abdominal route after the PEG tube removal. Active ulcer lesion with exposed vessel was observed in greater curvature of the stomach body and successful hemostasis was achieved by epinephrine injection. After the procedure, PEG tube was re-inserted and neither complications nor re-bleeding was developed.

Conclusion: In patients with PEG tube, trans-abdominal approach of endoscopy is possible option for endoscopic hemostasis when non variceal upper gastrointestinal bleeding is occurred.

Comparison of the Efficacy of Closure Techniques for Large Colon Perforation in an Established Experimental Simulation Model

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Background/Aims: Early recognition of perforation and rapid closure of mucosal defect can prevent peritonitis and surgery by mineralization of the egress of luminal contents. Therefore, the aim of this study was to evaluate the efficacy of closure techniques for large colon perforation.

Methods: This study was designed as a prospective, controlled, and ex vivo study. A total of 30 standardized defects measuring 3 cm were created approximately 10 cm from anal verge in fresh ex vivo porcine colorectal specimens using the simulator platform. An experienced endoscopist performed the three closure techniques such as endoclip closure technique (Endoclip group), loop and clip technique (Endoloop group) and OTSC closure technique (OTSC group).

Results: In Endoclip group, the mean total procedure time was 14.2 ± 6.9 minutes and mean number of spending endoclips (90 degree, long, Olympus Optical Co., Tokyo, Japan) were 6.4 ± 1.5. Complete closure rate was 50% (5/10, three for leak detection and two for closure failure). In Endoloop group, the mean total procedure time was 12.5 ± 5.9 minutes and mean number of spending endoclip with an endoloop (Olympus Optical Co., Tokyo, Japan) were 6.4 ± 1.5. Complete closure rate was 40% (4/10, five for leak detection and one for closure failure). In OTSC group, the mean procedure time was 2.8 ± 1.8 minutes and mean number of spending endoclip with an OTSC clip were 0.7 ± 0.8. Complete closure rate was 70% (7/10, three for leak detection). The mean total procedure time of OTSC group was significantly shorter than Endoclip and Endoloop group (p<0.001).

Conclusion: OTSC with enclipping method seems to be safer and faster for large colon perforation in ex vivo setting. Further large and clinical trial needed for proving this result.