

Tunneling endoscopic muscularis dissection for subepithelial tumors originating from the muscularis propria of esophagus and gastric cardia runing head: Tunneling muscularis dissection for esophageal muscularis propria tumors

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Background and aims: Endoscopic resection of esophageal or cardiac subepithelial tumors (SETs) originating from the muscularis propria (MP) is rarely done due to high risk of perforation, fistula formation and secondary infection. Aim of this study was to evaluate the preliminary clinical feasibility and safety of tunneling endoscopic muscularis dissection (tEMD) for resection of SETs located in esophagus and gastric cardia.

Methods: 12 patients with SETs originating from the MP of esophagus (7) or cardia (5) were treated by tEMD. The procedure included creation of submucosal tunnel to reach the tumor, dissection of the tumor from surrounding submucosal tissue and unaffected MP layer, and full-thickness resection of tumor and affected MP with subsequent closure of the tunnel mucosal entry with endoscopic clips.

Results: The en bloc resection rate was 100%. The average tumor size was 18.5 ± 6.9 (range, 10-30) mm. The mean operation time was 78.3 ± 25.5 (range 50-130) min. The histological diagnosis was 2 gastrointestinal stromal tumor (GIST) with very low risk, 9 leiomyoma and 1 schwannoma. Complications included subcutaneous and mediastinal emphysema in 8 patients (66.7%), pneumothorax in 4 (33.3%), pneumoperitoneum in 3 (25.0%), small pleural effusion in 2 (16.7%) and mucosal ulceration at the surface of submucosal tunnel in 4 (33.3%). All complications were resolved with conservative management. During the mean follow up time of 7.1 ± 4.3 (range 2-15) months, no tumor recurrence was found in any patient.

Conclusions: tEMD appears feasible, minimal invasive and effective treatment for patients with SETs originating from MP layer of esophagus and cardia.

Keywords: Endoscopic Resection; Therapeutic Upper Gastrointestinal Endoscopy; Subepithelial Tumors; Submucosal endoscopy.

Biography

Bing-Rong Liu had completed his M.D from Chongqing Medical University in China 10 years ago. He is the director of Department of Gastroenterology and Hepatology of The Second Affiliated Hospital of Harbin Medical University. He has published some papers in reputed endoscopic journals such as Gastrointestinal Endoscopy and Surgical Endoscopy. He is an international member of AGA and ASGE.

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