

中文題目：在內視鏡黏膜剝離術前後食道機能的改變

英文題目：The esophageal motility change before and after endoscopic submucosal dissection treatment

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**Background:** Endoscopic submucosal dissection (ESD) is one of treatment methods for early neoplasm of esophagus. Dysphagia is a common complication even without postoperative strictures, which might be associated with esophageal motility disorder induced by ESD. The influence of ESD on esophageal motility remains inconclusive. The goal of this study is to evaluate changes in esophageal motility after ESD by high-resolution manometry (HRM).

**Method:** Eight patients (men/women, 7/1; mean age, 51.1 years) who underwent ESD for early esophageal neoplasm were enrolled in this study. The results of ESD were retrospectively investigated using endoscopic images from the ESD. Each patient underwent HRM before and after ESD, and the results were evaluated using metrics and contraction patterns, according to the Chicago classification 3.0. The change of HRM after ESD was analyzed according to the location, size and range of ESD lesions.

**Results:** Data were obtained from 8 patients. All lesion sizes of ESD are less than 75% circumference of esophagus. No esophageal stricture was noted after the procedure and no patients need subsequent procedures such as endoscopic triamcinolone injection and endoscopic balloon dilatation. The average duration of HRM evaluation after ESD was  $128.3 \pm 27.8$  days. The change of distal contractile integral (DCI) before and after ESD were not significantly different in different locations, sizes and ranges of ESD lesions (Table 1). Five patients had new diagnosed esophageal motility disorders after ESD, but there were no significant associations to the locations, sizes and ranges of ESD lesions. Nevertheless, the results confirmed that the degree of esophageal motility alternations had a trend of positive correlation to larger ESD lesion sizes and ranges, especially in size of more than  $5.6\text{cm}^2$  and range of more than 50% circumference of esophagus.

**Conclusion:** ESD lesion with larger size and ranging more than 50% circumference of esophagus are possible predictors for impaired esophageal motility after ESD, which is necessary to be proven in further larger-scale study.