

中文題目：化學放射治療後的內視鏡黏膜下剝離術對晚期頸部食道癌的治療：病例報告及文獻回顧

英文題目：Endoscopic submucosal dissection following definite chemoradiotherapy for advanced cervical esophageal cancer: a case report and literature review

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### **Introduction:**

Esophageal cancer is the sixth common cause of cancer-related death worldwide. Definitive chemoradiotherapy (dCRT) is the mainstay of treatment for cervical and inoperable esophageal squamous cell carcinoma (ESCC), but the rate of locoregional failure (i.e., local recurrences and residual lesions) remains relatively high. Salvage esophagectomy may be a choice but carries high surgical mortality rate. If the residual tumor is superficial, endoscopic resection might be effective and less invasive. Here, we report a case with locally advanced cervical ESCC, treated with dCRT and salvage endoscopic submucosal dissection (ESD) for residual high-grade dysplasia and reviewed the literature.

### **Case report:**

This 58-year-old patient presented with dysphagia for 6 months. Endoscopy showed ulcerative tumor in cervical to upper esophagus and a relative early in lower third esophagus (18-22 and 38cm from incisor). The biopsy pathology was moderately differentiated squamous cell carcinoma. Chest computed tomography (CT) and Positron Emission Tomography-Computed tomography (PET-CT) revealed cT3N1M0, stage III disease. He received dCRT with two cycle of 5-fluorouracil and platinum plus radiotherapy 5000cGy in 25 fractions (2019/02/01-2019/03/18) and achieved partial response. A series follow-up esophagogastroduodenoscopy (EGD) showed nearly total tumor regression but biopsy of the discolored mucosa at 25 and 34 cm from incisors showed high-grade dysplasia. He refused surgery because total laryngectomy required and received further chemotherapy for 18 months. Endoscopic ultrasonography (EUS) disclosed no obvious mass lesion with intact muscularis proper layer; CT and PET-CT revealed persistent shrinkage in size of the tumors at the upper third esophagus without metastasis. The tumor was clinically down-staged to T1aN0M0. ESD for residual esophageal neoplasm was performed smoothly. The final pathology results showed high grade intraepithelial neoplasia with negative margins. We assessed him at regular follow-ups with EGD, CT, and PET after ESD. Neither local recurrence nor distant metastasis of esophageal cancer have been observed for 11 months.

### **Discussion:**

We reported a case of locally advanced cervical ESCC. After dCRT, salvage ESD

was performed for residual high-grade dysplasia. The patient has remained disease-free for 11 months after ESD with good performance and quality of life. According to the National Comprehensive Cancer Network (NCCN) guideline, salvage esophagectomy is the gold standard to treat resectable locoregional failure of esophageal cancer after dCRT with the goal of complete cure. Patients unwilling to receive surgery due to its high morbidity and mortality rates and poor quality of life after the surgery should receive intense surveillance. However, to date, there is no single modality, such as PET-CT, image-enhanced endoscopy, nor EUS that can reliably detect minute residual cancer because of the post-irradiation changes, such as chronic inflammation and tissue fibrosis after dCRT. Currently, no clear guidelines for routinely performing restaging strategies are available. Shapiro et al reported that residual tumor in surgical resection specimen after dCRT are located mostly in the mucosa and submucosa layers. In review of literature, given the feasibility, efficacy and safety, ESD has been considered a potential alternative for local failure after dCRT if the tumor is localized and superficial. We present this case and share our experience with physicians in Taiwan.

#### Summary of studies of salvage ESD for local failure after CRT for ESCC

Study	Saito (2008)	Takeuchi (2013)	Koizumi (2014)	Kondo (2016)	Nakamura (2016)	Al-Kaabi (2021)
Method	case series	retrospective singlecenter case-control	retrospective singlecenter cohort	retrospective singlecenter cohort	retrospective singlecenter cohort	multicenter
Period	2006	2000-2010	2004-2011	2000-2010	2001-2012	NA
No. of case	4	19	12	37	37	25
Resection rate						
curative	NA	NA	50%	53.1%	NA	47%
complete	75%	94.7%	83.8%	NA	NA	58%
Adverse events	0%	Not major	Not major	18.9%	Not major	16%
Median survival	NA	NA	18months	NA	NA	NA
Overall survival						
3-year	NA	74%	NA	72.9%	NA	NA
5-year	NA	NA	NA	53.3%	29.7%	52%
median follow-up period	NA	54 months	NA	54 months	NA	24 months