

# Complete Remission of Unresectable Esophageal Cancer Achieved with Concurrent Chemoradiotherapy: A Case Report

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A 41-year old woman with dysphagia visited, which was aggravated after eating. On physical examination, there was a palpable mass on the left supraclavicular area. Endoscopic examination revealed a mass on the distal esophagus with irregular mucosa, erythema and a whitish plaque with luminal narrowing. The patient was diagnosed with unresectable esophageal cancer (squamous cell carcinoma, T3N2M1, Stage IV). The patient received CCRT (total 63 Gy) with cisplatin and 5-fluorouracil (5-FU). After CCRT, the patient took an additionally 2 cycles of chemotherapy for consolidation (cisplatin and 5-FU every 4 weeks). After additional chemotherapy, endoscopic examination showed no residual tumor, a chest CT scan revealed that the mass in the distal esophagus had decreased and there was no enlargement of the lymph nodes around the left supraclavicular area. The patient has been in complete remission for 5 years.

**Key Words:** Esophageal cancer, Concurrent chemoradiotherapy, Complete remission

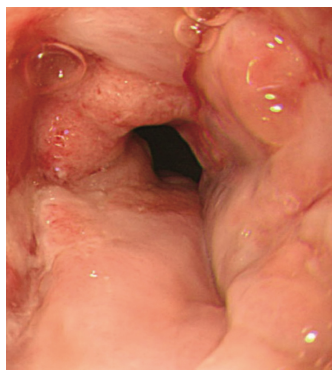
## INTRODUCTION

Esophageal cancer is the eighth most common cancer worldwide. The prognosis of esophageal cancer is poor because the tumor can easily invade surrounding tissue, the symptoms present late and there are many lymphatics around the esophagus.<sup>1</sup> Multiple treatment options including concurrent chemoradiotherapy (CCRT) and metal stent placement can be considered to treat patients with unresectable esophageal cancer. We present a patient with unresectable esophageal cancer that achieved complete remission after CCRT.

## CASE REPORT

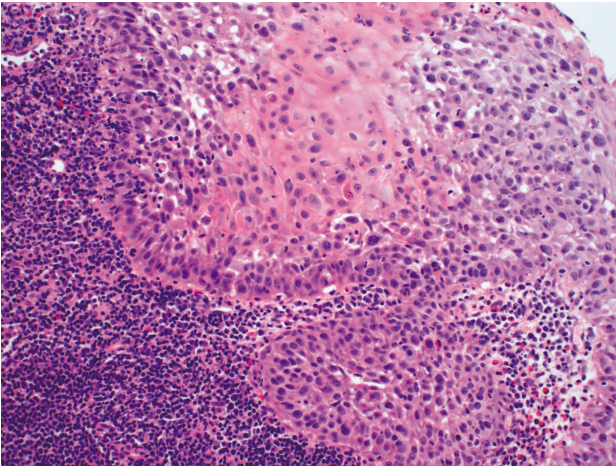
A 41-year old woman with dysphagia visited our institution. Six months before presentation, the patient had complained of progressive dysphagia, which was aggravated after eating. She was taking a proton-pump inhibitor that was prescribed

at other clinics, however, the symptom persisted. One month before presentation, she even had difficulty drinking water. On physical examination, there was a palpable mass on the left supraclavicular area. Endoscopic examination revealed a mass on the distal esophagus with irregular mucosa, erythema and a whitish plaque with luminal narrowing (Fig. 1). We obtained multiple biopsies. The results of the pathologic examination indicated a squamous cell carcinoma with a central keratin pearl (Fig. 2). We confirmed metastatic squamous cell carcinoma in the left supraclavicular lymph node. Computed tomography (CT) showed a 4 cm mass on the distal esophagus as well as enlargement of the lymph nodes around the retro aortic and left supraclavicular areas. Positron emission tomography (PET)-CT scans revealed hypermetabolic lesions

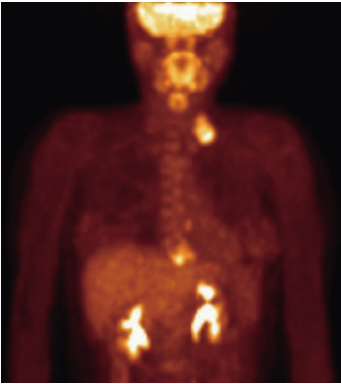


**Fig. 1.** Endoscopic examination revealed a mass on the distal esophagus with irregular mucosa, erythema and a whitish plaque with luminal narrowing.

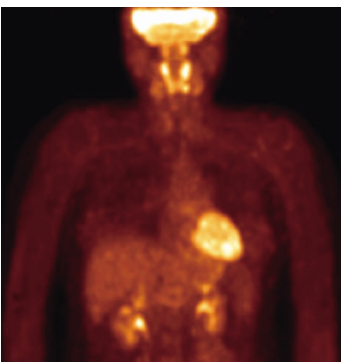
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**Fig. 2.** The results of the pathologic examination indicated a squamous cell carcinoma with a central keratin pearl (H-E,  $\times 200$ ).



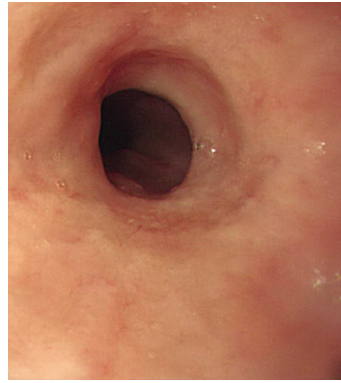
**Fig. 3.** PET-CT scans revealed hypermetabolic lesions on the distal esophagus and the left supraclavicular, para aortic and gastrohepatic areas.



**Fig. 4.** Hypermetabolic lesions which were seen previously on the initial PET-CT scan disappeared on the latest PET-CT scan.

on the distal esophagus and the left supraclavicular, para aortic and gastrohepatic areas (Fig. 3). The patient was diagnosed with unresectable esophageal cancer (squamous cell carcinoma, T3N2M1, Stage IV).

The metal stent was placed on the distal esophagus to improve obstruction. The patient received CCRT (total 63 Gy) with cisplatin and 5-fluorouracil (5-FU). After 2 cycles of



**Fig. 5.** The latest endoscopic examination showed that there was no residual tumor on the distal esophagus.

CCRT, we discontinued treatment for 7 months owing to neutropenia, radiation pneumonitis, and reduced performance status. During this period, the metal stent in the esophagus migrated and was hence removed. After CCRT, the patient took an additional 2 cycles of chemotherapy for consolidation (cisplatin and 5-FU every 4 weeks). After additional chemotherapy, endoscopic examination showed no residual tumor. A follow up chest CT scan revealed that the mass in the distal esophagus had decreased and there was no enlargement of the lymph nodes around the left supraclavicular area. And hypermetabolic lesions which were seen previously on the initial PET-CT scan disappeared on the latest PET-CT scan (Fig. 4). A recent endoscopic biopsy revealed that there were no residual tumor cells (Fig. 5). The patient achieved pathologic complete response and has been in complete remission for 5 years.

## DISCUSSION

Unresectable esophageal cancer has a poor prognosis. The median survival time of patients with unresectable esophageal cancer has been reported to be approximately 9 months and 5-year survival rate is 5-7%.<sup>2</sup> The management of esophageal cancer is challenging and requires a multimodality approach including surgery, chemotherapy, CCRT, and metal stent placement. A guideline recommends CCRT or best supportive care in the patients with less than 2 points of performance status (Eastern Cooperative Oncology Group, ECOG) and best supportive care in the patients with more than 3 points of performance status.<sup>3</sup>

The palliative roles of CCRT which improved the symptoms of unresectable esophageal cancer are well known. Coia et al.<sup>4</sup> reported that initial improvement in dysphagia occurred in 88% of the 102 patients who underwent CCRT. In addition, The Radiation Therapy Oncology Group (RTOG) 85-01 trial established the efficacy of definitive CCRT with

fluorouracil and cisplatin for patients with localized esophageal cancer as improving survival significantly compared with radiotherapy alone.<sup>5</sup>

Stahl et al.<sup>6</sup> also showed that definitive CCRT resulted in equivalent survival with less toxicity in patients with locally advanced esophageal cancer. In this study, survival rate at 3 years were 58% and 55%, respectively, without significant difference. On the other hand, local progression-free survival was better in the surgery group than in the chemoradiotherapy group (2-year progression-free survival, 64.3% and 40.7%, respectively). Subsequent studies confirmed the efficacy and safety of CCRT and established it as a standard of care for patients with esophageal cancer unsuitable for surgery.<sup>6-8</sup>

In unresectable and metastatic stage of esophageal cancer, although there are less studies in compared with locally advanced stage, some studies have proven that CCRT is significantly effective with radiotherapy or chemotherapy alone in unresectable and metastatic stage (Stage IV) of esophageal cancer. Feliu et al.<sup>9</sup> treated the patients with CCRT for inoperable squamous cell carcinoma. They reported that the overall response rate increased to 63% and pathologic complete response rate was approximately 3-10%. Similarly, Bleiberg et al.<sup>7</sup> also showed that overall response rate was 35% with CCRT using 5-FU and cisplatin in metastatic esophageal cancer. Two of total 88 patients showed the pathological complete response in this study. We think that the pathological complete response is a major factor of long-term prognosis in unresectable esophageal cancer. And cases of complete remission with more than 5 years of follow-up are rare.

## CONCLUSION

In this case, we started treatment in unresectable stage of esophageal cancer with CCRT and 2 cycles of additional chemotherapy for palliation. We had initially planned more than 2 cycles of additional chemotherapy for consolidation, however, we discontinued treatment because the patient refused further treatments including salvage resection owing to com-

plications such as radiation pneumonitis and neutropenia. Although we had thought that it was not enough to obtain a good response of treatment, the patient unexpectedly achieved a pathologic complete response with CCRT and she has been in complete remission for 5 years.

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