

# Esophageal Surgery

## Introduction

We usually perform transthoracic total esophagectomy with mediastinal and cervical lymph node dissection for resectable primary esophageal cancer. This is the standard surgical intervention for the disease in Japan, but the physical burden is severe on patients. A considerable number of patients, hence, select definitive chemoradiotherapy instead of surgery in recent years.

Approximately 20 to 30 esophageal cancer patients are surgically managed in every year. The prognosis of patients with advanced disease is still poor, though the number of patients with curable early cancer has been increasing in the recent years.

## Routine Activities

Recently, esophageal cancer patients are increasing in number in our hospital. All patients are presented at our weekly conference having the attendance of medical oncologists, endoscopists, radiologists and thoracic surgeons. At surgery, a staff thoracic surgeon and 1 to 3 residents operate the resectable, primary esophageal cancer patients (stage I to III), and, in general, a surgeon from the Head and Neck Division cooperates with us for performing the cervical lymph node dissection. In early cancer patients, who are not candidates for endoscopic mucosal resection, or at high-risk, we perform transhiatal pull-through esophagectomy or video-thoracoscopy assisted, mini-thoracotomy approach.

In patients with CT-detectable mediastinal lymph node swelling, the surgical outcome is actually miserable. Therefore, we attempted preoperative chemo-radiotherapy as a clinical trial in the past period. Although pathological CR patients were expected to enjoy much better survival, postoperative morbidity was high in the population. And because of this

excessive morbidity and mortality, we closed the study.

## New developments

- 1) A protocol study for surgical cases have been carried out, which is a multi-institutional randomized controlled trial, and is designed to evaluate the superiority of therapeutic efficacy in preoperative chemotherapy comparing with the control of postoperative adjuvant chemotherapy (JCOG 9907).
- 2) For high-risk patients with early cancer, we attempted to perform hand-assisted thoracoscopic esophagectomy. We use a video-thoracoscope and perform thoracic procedure through only three thoraco-ports. The operator inserts his left hand into the right thoracic cavity via the retro-sternal space through a mid upper abdominal incision without opening the abdominal cavity.
- 3) We apply the median sternotomy approach for the resection of upper thoracic esophageal cancer. Lung cancer patients are usually performed of operation by this method.
- 4) Since 2002, we started salvage surgery for the patients who failed to achieve the local control by definitive chemoradiotherapy. Because such patients were treated with broad (long T-form) and full dose irradiation, surgeons have to pay attention to overcome the various complications such as leakage after surgery. All patients are reconstructed by right colon conduit with supercharged at the neck. Nevertheless, there was one case of operative death. With increase of the number of patients treated with chemo-radiotherapy, the number of candidates for salvage surgery is expected to be also increasing. Anyway, the adequacy in indication for this operation should be further investigated.

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Number of surgical cases and their pathological stages

|           | year |      |      |      |      |
|-----------|------|------|------|------|------|
|           | 1999 | 2000 | 2001 | 2002 | 2003 |
| p-Stage I | 6    | 4    | 4    | 6    | 4    |
| IIA       | 4    | 4    | 3    | 9    | 11   |
| IIB       | 4    | 4    | 4    | 2    | 4    |
| III       | 4    | 3    | 10   | 6    | 5    |
| IV        | 0    | 3    | 0    | 0    | 0    |
| NE*       | 0    | 0    | 3    | 13   | 12   |
| Total     | 18   | 18   | 24   | 36   | 36   |

\* salvage surgery