

## The Reality and the Reliability of Esophageal Cancer Treatment: Which Will You Choose for Yourself?

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If you or your family were to be diagnosed as having an esophageal cancer, which treatment would you choose? Although surgery is known to be the standard treatment for esophageal cancer<sup>1)</sup> can surgical therapy be trusted in terms of safety? Is a nonsurgical remedy such as chemoradiotherapy satisfactory in terms of radicalness?<sup>2)</sup>

The esophageal cancer is highly malignant, and it metastasizes to the lymph nodes in an early stage. The most predominant site of metastasis is the lymph nodes around the recurrent laryngeal nerve in the upper mediastinum followed by the lymph nodes of the gastric lesser curvature. Differing from other cancers, lymph node metastasis in the esophageal cancer is not entirely dependent on the spatial distance from the primary tumor. The route of metastasis in the esophageal cancer is complicated.

To improve its radicalness, in the 1980s, “three-field lymph node dissection,” which dissects cervical, thoracic, and abdominal lymph nodes, was developed and established in Japan. Because the three-field lymph node dissection is an ultimate procedure of lymphadenectomy in gastrointestinal tract cancer surgery, no lymph node may remain after completion of this surgery.

Although this procedure is known as the gold standard in Japan, it is not performed in the so-called low-volume hospitals. Moreover, in other countries it is regarded as an “extended surgery” and is uncommon.

Indeed, a five-year survival rate of esophageal cancer patients has been improved after the establishment of the three-field lymph node dissection.

Today’s five-year survival rate for esophageal cancer patients at high-volume hospitals reaches 50% to 60%. On the other hand, because three-field lymph node

dissection is a massive surgery compared to other gastrointestinal cancer surgeries, such as gastric carcinoma and colon cancer and pulmonary cancer surgery, it is true that it has much greater postoperative complications. It is true that the operative mortality of three-field lymph node dissection is much higher.

Three-field lymph node dissection performed on an esophageal cancer is a “double-edged blade.” This means that when it is performed properly, the result is promising, but if it is not, the outcome will be unfavorable. To obtain maximum therapeutic effects, the right edge of a three-field lymph node dissection should be sharpened to the highest quality. It will be useless if the resulting survival benefits do not surpasses mortality. The survival rate of postoperative esophageal cancer is unquestionably not the same at all institutions; thus volume-quality relationship does exist. The next mission for esophageal surgeons is therefore to perform the three-field lymph node dissection in the safest way possible, and that stresses the importance surgeons must place on quality control.

Chemoradiotherapy has recently become the most developed and widely accepted treatment as a nonoperative treatment for esophageal cancer. Although a very few reports had demonstrated that esophageal cancer disappeared after sole-radiotherapy, several clinical trials have successfully revealed the superiority of chemoradiotherapy over sole-radiotherapy, since then it has regained its popularity in the treatment of esophageal cancer. Moreover, definitive chemoradiotherapy is performed on patients of stage I esophageal cancer (preoperative diagnosis, T1N0M0; cancer remained in the submucosal layer with no suspicious lymph node metastases). Definitive chemoradiotherapy had been introduced in the treatment of locally advanced esophageal cancer, and the therapeutic outcome seemed to be promising. However, critical analyses by radiologists and clinical oncologists revealed that the five-year survival rate of definitive chemoradiotherapy in patients with stage II/III esophageal cancer remained nearly

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30%. The evaluation of this figure, whether it is high or low, may vary among institutions. That is, if the five-year postoperative survival rate also shows 30%, the effects of the surgery and chemoradiotherapy are to be chosen if the importance of esophagus conservation and the risk of the surgery are taken into consideration. However, at high-volume hospitals, the five-year survival rate for postoperative stage II/III esophageal cancer reaches 50% to 60%; therefore it can be said that they will adopt an operative therapy.

Although three-field lymph node dissection is well-established surgery as a concept, the question still remains whether the operation is a unified surgical technique.

We must stringently verify whether it is standardized and widely employed as a stable operative procedure

from here on, and it needs to be thoroughly reviewed.

If you are now suffering from an esophageal cancer, you must discern which hospital you will visit before you decide what kind of treatment you will receive.

## References

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