Diagnosis and Treatment of Early Esophageal Cancer

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Superficial Cancer of the Esophagus

According to the descriptive guidelines of the Japanese Society for Esophageal Diseases [1], cancer in which invasion is limited to the submucosa is defined as superficial cancer and superficial cancer without metastasis is defined as early cancer of the esophagus.

The authors [2] have resected 113 cases of superficial cancer in Tokyo Women's Medical College and Tokyo Medical and Dental University Hospital between 1965 and 1985; 69 (61%) of these 113 cases were early cancer without metastasis.

The diagnosis and treatment of early stage cancer, in which good clinical results can be anticipated, are analyzed in this paper.

Surgical Procedures

There was no special procedure employed for resection of superficial cancer of the esophagus. Routine systematic dissection of lymph nodes throughout the mediastinum to the celiac artery area and total or subtotal esophagectomy were performed except in a few cases. As for reconstruction, usually the stomach and occasionally the colon were employed. In a few cases with pulmonary dysfunction, esophagectomy without thoracotomy was performed.

The operative mortality was 1.8%. This figure was better than the 4.2% rate of advanced cancer cases.

Long-Term Results

The 5-year survival rate of early cancer was 66%. Otherwise that of superficial cancer with lymph node metastasis is 21%, which is the same figure as that of advanced cancer cases (Fig. 1).

The major reason for the poor long-term results of superficial cancer with metastasis may be attributed to preservation of distant lymph node metastasis. Involvement was demonstrated in 25% of upper mediastinal nodes, in 48% of paracardial nodes, and in 50% of nodes at the base of the left gastric artery. Most metastases were found in the second and tertiary group of lymph nodes (Fig. 2).
In relation to the cancer invasion, the 5-year survival rate of mucosal cancer cases was 100%; however, that of submucosal cancer cases was 48%.

Looking at only early cancer, which had no nodal involvement, the same tendency was seen. The 5-year survival rate of mucosal cancer cases was 100%, while that of submucosal cancer was 73%.

**Recurrence in Early Cancer Cases**

Most cases of superficial cancer with lymph node metastasis died due to recurrence.

Recurrence was found in 10 of 69 cases of early cancer with no nodal involvement. It was characteristic that all recurrence cases were submucosal cancer and most had displayed vascular invasion. The recurrence was predominantly in the upper mediastinum and neck, followed by metastasis to other organs, which was identical to that of advanced cases. Another characteristic was that recurrence was observed long after surgery.