

## POST-OPERATIVE COMBINATION OF RADIOTHERAPY AND CHEMOTHERAPY IN ESOPHAGEAL CANCER

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**Purpose** : To evaluate the effect of post-operative concurrent chemoradiotherapy (CCRT) and to determine the prognostic factors in esophageal cancer.

**Materials and Methods** : From October 1991 to November 2000, fifty-six patients with esophageal cancer received post-operative radiotherapy at VGH-KS. Twenty-three patients were treated with radiotherapy (RT) alone at 50 Gy and others underwent RT combined with chemotherapy (C/T) consisting of cisplatin plus 5-fluorouracil (5-FU). There was no significant difference in patient characteristics between two groups, except in tumor length. We compared overall, disease-free, loco-regional-free and distant-metastasis-free survival rates between two groups. We also analyzed various prognostic factors including age, tumor length, tumor stage, status of surgical margin, lymph node (LN) metastasis, vascular or neural invasion, and the time interval between operation and radiotherapy.

**Results** : The median follow-up time was 16 months. For all patients, the overall survival (OS) at 5 years was 20.2%, and the disease-free survival (DFS) was 19.1%. Loco-regional failure occurred in 14.3% of patients and 35.7% of patients developed distant metastasis. The 2-year and 5-year overall survival rates were 42.7% and 23.7% for RT group and 41.0% and 16.0% for CCRT group. There was no significant difference in OS and DFS between two groups ( $p=0.694$  and  $0.875$ ). In lymph node metastatic patients, overall and disease-free survivals of CCRT group were not superior to those of RT group ( $p=0.273$  and  $0.486$ ). In CCRT group, there was also no significant difference in OS and DFS between the patients receiving less than 3 cycles of C/T and those receiving more ( $p=0.968$  and  $0.406$ , respectively). By the uni-variate analysis, we found that neural invasion, numbers of LN metastases and involved LN levels, and the percentage of positive dissected LN affected the survival rates. The only prognostic factor of survivals in the multi-variate analysis was the involvement of more than one LN level.

**Conclusion** : Based on our analysis, post-operative combination therapy is no better than adjuvant radiotherapy alone in disease control. The most important prognostic factors affecting the post-operative survival rate of patients are the number of positive lymph node and LN levels involved, the percentage of positive dissected LN and neural invasion.

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