

PROGNOSTIC FACTOR ANALYSIS FOR LUNG CANCER PATIENTS WITH SUPERIOR VENA CAVA SYNDROME TREATED WITH RADIATION THERAPY

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Purpose : Superior vena cava (SVC) syndrome is associated with malignancy in more than 90% of cases. Among them, lung cancers are the most common primary tumor. The aim of this retrospective study was to investigate prognostic factors in lung cancer patients with SVC syndrome treated with palliative radiation therapy (RT).

Materials and Methods : From January 1996 to December 2003, 92 lung cancer patients with SVC syndrome were referred for RT. Clinical charts and RT records were reviewed. All patients were followed up until death. Kaplan-Meier survival curves were calculated and comparisons of different subgroups were made by the log-rank test.

Results : Fifty-three of 92 patients completed the planned RT (30 Gy). The median overall survival for all patients was 65 days. Patients without distant metastasis at RT had significantly longer median survival than those with distant metastasis at RT (150 vs. 49 days, $p = 0.0038$). Patients receiving complete RT had significantly longer median survival than those who received incomplete RT (111 vs. 14 days, $p = 0.0006$). Patients with Karnofsky performance scale $\geq 70\%$ had significantly longer median survival than those with Karnofsky performance scale $< 70\%$ (107 vs. 44 days, $p = 0.0089$). Patients with symptom relief after RT had significantly longer median survival than those without symptom relief (113 vs. 15 days, $p = 0.0000$). With multivariate analysis, only distant metastasis was a significant prognostic factor ($p = 0.019$).

Conclusion : Our analysis showed that no distant metastasis at RT, Karnofsky performance scale $\geq 70\%$, symptom relief after RT, and RT completion were significant favorable prognostic factors for lung cancer patients with SVC syndrome who received RT.

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Key words: Lung cancer, Superior vena cava syndrome, Radiation therapy

INTRODUCTION

Superior vena cava syndrome (SVC syndrome) is the clinical manifestation of the obstruction of venous blood flow through

the superior vena cava. It was first described by William Hunter in 1757 in a patient with syphilis aortic aneurysm. During recent decades, most SVC syndrome (93% to 99.3%)