

Concurrent Radiochemotherapy in Locally Advanced Hypopharynx and Larynx Cancer

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Purpose : We conducted a prospective protocol of concurrent radiochemotherapy (CRCT) for patients with locally advanced unresectable hypopharynx and larynx cancer and would report our results.

Materials and Methods : From January 1995 till December 2001, 16 patients with locally advanced unresectable squamous cell carcinoma of the hypopharynx and larynx were treated with CRCT. The median age was 56(30–69) years, and the male to female sex ratio was 13 : 3. ECOG performance status was 0 to 2 in all patients. Seven patients had hypopharynx cancer and nine did larynx cancer. AJCC stages were IV in 15 patients, and III in one. T stages were T1 in one, T2 in one, T3 in one, and T4 in 13 patients, and N stages were N0 in five, N1 in two, N2 in six, and N3 in three patients, respectively. The median total radiation dose was 64.8(55.8–72) Gy by conventional fractionation schedule. Chemotherapy regimens during CRCT included 3 cycles of cisplatin single(10 patients), 3 cycles of cisplatin+5-fluorouracil (FP) (5 patients) every 3 weeks, and weekly taxotere+cisplatin (TP) (1 patient). 3 cycles of adjuvant FP or TP regimen were planned to follow the completion of CRCT course.

Results : The median follow-up period of the survivors was 29(9–85) months. Eight patients(50%) received less than 4 cycles of chemotherapy due to acute side effects, and two patients(12.5%) could not complete the planned radiation therapy. One patient receiving FP regimen expired due to septic shock during CRCT. Esophagitis was the most common acute side effect affecting all patients, where grade

3 was seen in 12 patients(75.0%), and grade 4 in four patients(18.8%). Grade 3 neutropenia was seen in four patients (one receiving FP, three receiving CDDP alone), and Grade 4 neutropenia was seen in one patient(receiving FP). Clinical responses evaluated by physical examination and CT or MR imaging studies in 1 month of CRCT were complete response in 11 patients(68.8%), partial response in three patients(18.8%), and progressive disease in two patients(12.5%). Local recurrence in the primary site occurred in two patients(12.5%), and distant metastases did in four patients(25.0%), in all of who the bone was affected. Total laryngectomy was performed in two patients : one with local recurrence and the other with laryngeal stricture. The median survival period was 20.7(2–82) months. The overall survival and disease-free survival rates at 3- and 5-years were 45.1% and 45.1%, and 64.5% and 64.5%, respectively. There was no significant difference in overall survival, disease-free survival rates depending on the possible prognostic factors including the primary site, T stage, N stage, and chemotherapy regimen.

Conclusion : Based on the above observations, definitive CRCT is comparable to the historic data with respects to treatment results and could serve as an effective modality with the larynx-preserving capability. CRCT with cisplatin single agent is considered to be better tolerated with similar outcomes compared with FP regimen.

KEY WORDS : Concurrent Radiochemotherapy · Hypopharynx Cancer · Larynx Cancer.