

CURATIVE RADIOTHERAPY FOR VOCAL CORD CARCINOMA

Weng Yih-Chyang, Jin-Ching Lin, Jian-Sheng Jan

Department of Radiation Oncology, Veterans General Hospital-Taichung

Radiotherapy for vocal cord carcinoma plays an important role in controlling the primary tumors and regional lymph nodes and preserving the voice. From February 1983 to December 1992, 75 patients with vocal cord carcinoma were treated by curative radiotherapy alone at VGHTC. 69 patients were male and 6 patients were female. The median age was 64 years old.

There were 40 of 75 patients with T1, 22 with T2, 8 with T3 and 5 with T4. 5 of 75 patients had positive lymph node metastases (1 of 5 patients with T1, 1 with T2, 1 with T3, and 2 with T4).

External beam radiotherapy was mostly delivered with bilateral opposing portals and a single daily fraction between 200 cGy and 220 cGy per day, up to a total dose between 6000 cGy and 6600 cGy. 8 patients were treated with bilateral opposing portals and hyperfractionation using 150 cGy to 170 cGy bid per day, up to a total dose between 5800 cGy to 7400 cGy. 1 patient was treated with bilateral opposing portals and split course technique of 300 cGy per day with two weeks interval, up to 6000 cGy.

Almost all patients recovered from acute reactions of radiotherapy soon except one patient with acute laryngeal edema in 2 months post radiotherapy and two patients with acute pneumonia due to cachexia in the last days of radiotherapy.

The vocal function preservation rate is about 96%. The 5-year disease-free survival rates in stage T1, T2 and T3 were 86%, 80% and 75% respectively and T4 patients all died in 18 months. The P value is less than 0.001. The 5-year disease-free survival rate in stage N0 was 82% but N positive patients died in 30 months post radiotherapy. The P value is less than 0.001. Therefore T4 stage and N positive were obviously poorly prognostic factors. No significant differences of 5-year disease-free survival rates between male and female or younger and older age were noted and P values were 0.36 and 0.98 respectively.

5 patients with early stage were treated by hyperfractionation radiotherapy from 1991 to 1992. They have had good local control with a minimum follow-up of 24 months but it needs more time to follow up.

[Therapeut Radiol Oncol 1995; 2:187-192]

Key words: Vocal cord carcinoma, Radiotherapy.