

## DEFINITIVE RADIOTHERAPY WITH OR WITHOUT CHEMOTHERAPY FOR RESECTABLE HEAD AND NECK CANCER

Jason Chia-Hsien Cheng<sup>1</sup>, Skye Hongiun Cheng<sup>1</sup>, James Jer-Min Jian<sup>1</sup>,  
Lawrence K. Yen<sup>2</sup>, Kwan-Yee Chan<sup>3</sup>, Cheng-I Hsieh<sup>4</sup>

<sup>1</sup>Department of Radiation Oncology, <sup>2</sup>Department of Head and Neck Surgery and Otolaryngology,

<sup>3</sup>Department of Radiology, <sup>4</sup>Department of Medical Oncology, Koo Foundation Sun Yat-Sen Cancer Center

**Purpose:** To retrospectively analyze the feasibility, toxicity and outcome of definitive radiotherapy with or without chemotherapy for patients with resectable head and neck cancers.

**Materials and Methods:** Thirty patients with resectable head and neck cancers were treated with definitive split-course radiotherapy with or without concurrent chemotherapy. One patient had stage I, 4 stage II, 3 stage III and 22 stage IV diseases. Radiotherapy was given once daily or twice daily with total dose of 68-74 Gy. Chemotherapy included 2 cycles with CDDP+/-5FU during radiotherapy, and 2 cycles with CDDP+5FU after radiation treatment. Survival outcome was calculated by the Kaplan-Meier method. Prognostic factors were determined by log-rank test.

**Results:** The median follow-up time was 50.8 months. The 4-year overall survival, disease-free survival and locoregional control rates were 55.7%, 64.9% and 75.8%, respectively. Treatment-related toxicities were tolerable. T1/T2 diseases were associated with better locoregional control ( $p=0.03$ ). The presence of residual disease on post-treatment MRI or CT was the prognostic factor for overall survival ( $p=0.05$ ), disease-free survival ( $p=0.009$ ) and locoregional recurrence-free survival ( $p=0.0001$ ).

**Conclusion:** Definitive radiotherapy with or without chemotherapy can be an alternative to radical surgery for patients with resectable head and neck cancers, with acceptable toxicity and outcome. The presence of residual disease on post-treatment imaging studies demands further investigation and possibly salvage treatment.

[Therapeut Radiol Oncol 1999; 6: 33 - 39 ]

Key words: Resectable head and neck cancers, Radiotherapy, Chemotherapy, Concurrent

### INTRODUCTION

Combinations of surgery and radiotherapy are the standard treatments for patients with locally or regionally advanced head and neck cancer. However, the treatment outcome is not

satisfactory, with the survival rate below 40% and locoregional control rate less than 50% [8]. Radical surgery is usually associated with functional or cosmetic compromise in swallowing, respiration, and phonation. Several institutions have tried to preserve both organ and function

Received: 1999, 2, 25. Accepted: 1999, 5, 5.

Address reprint request to: Jason Chia-Hsien Cheng, M. D., Department of radiation Oncology, Koo Foundation Sun Yat-Sen Cancer Center, No. 125, Lih-Der Rd., Pei-Tou, Taipei 112, Taiwan