

## RADIATION THERAPY IN EXTRANODAL NON-HODGKIN'S LYMPHOMA OF THE HEAD AND NECK

Chung-Shuh Kao<sup>1</sup>, Jian-Sheng Jan<sup>1</sup>, Ching-Hsiung Chang<sup>2</sup>,  
Jin-Ching Lin<sup>1</sup>, Hsien-Chun Tseng<sup>1</sup>, Yih-Chyang Weng<sup>1</sup>

<sup>1</sup> Department of Radiation Oncology, Taichung Veterans General Hospital

<sup>2</sup> Department of Radiation Oncology, Veterans General Hospital-Kaohsiung

**Purpose:** To evaluate a variety of disease- and treatment-related variables that influence the prognosis of extranodal non-Hodgkin's lymphoma of the head and neck.

**Materials and Methods:** From June 1984 to April 1992, 22 patients with extranodal non-Hodgkin's lymphoma of the head and neck area had received radiotherapy at Taichung Veterans General Hospital. There were 16 males and 6 females between 14 and 79 years of age. The follow-up period ranged from 6 to 133 months. All patients were treated with Co-60 teletherapy machine, 6 MV or 10 MV linear accelerator. The radiation dose ranged from 2998 to 7001 cGy (mean: 4609 cGy). Prognostic factors such as the Ann Arbor stage, pathologic grading, number of involved sites, Waldeyer's ring involvement, age, sex, extent of radiation field, radiation dose, and LDH level were analyzed by retrospective review of the medical records.

**Results:** The most common acute radiation reactions occurred at mucous membrane and salivary gland. The overall 5-year disease-specific survival rate was 57%. Treatment failures included distant relapse (8 patients), relapse in primary site (3 patients) and regional LN (1 patient). The major cause of death was distant relapse. The Ann Arbor stage was the only significant prognostic factor in this study. The 5-year disease-specific survival was excellent for stage I disease (88%) and the survival rates for stage II, III, and IV were 53%, 0%, and 0%, respectively.

**Conclusion:** Non-Hodgkin's lymphoma arising from extranodal sites in the head and neck area was uncommon. The most significant prognostic factor was extent of the disease (Ann Arbor stage). Proper management of patients with early stage non-Hodgkin's lymphoma of the head and neck area remains controversial. However, excellent survival for stage I non-Hodgkin's lymphoma in the head and neck arising from extranodal sites was achievable by radiation therapy in this study.

[Therapeut Radiol Oncol 1997; 4: 77-84]

Key words: Prognostic factors, Acute radiation toxicities

### INTRODUCTION

Non-Hodgkin's lymphoma arising in extranodal sites of the head and neck is not common [2,6,20]. Its natural history is quite different

from primary nodal disease [7,8,12]. In the previous studies, involvement of Waldeyer's ring is related to the outcome of treatment [10,15]. Other factors such as the Ann Arbor stage, pathologic grading, number of involved sites,

Received: 1996, 8, 6. Accepted: 1997, 4, 3.

Address reprint request to: Dr. Chung-Shuh Kao, Department of Radiation Oncology, Veterans General Hospital-Taichung, 160 Sec. 3, Taichung Kaug Road, Taichung, Taiwan, R. O. C.