

of these women and clearly denied only in 21% and 26% respectively. In 5 (6%) patients surrogate markers of HPV infection were registered (sexually transmitted disease or cervix disease including cancer). Sixteen women had other cancers.

**Conclusion:** With the data assessed until now, no change in clinical and epidemiological changes or women with head and neck SCC referred to our institute could be detected.

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POSTER

**Different predictors of asymptomatic carotid artery stenosis in patients having received radiotherapy for head and neck cancers**

J. Chang<sup>1</sup>, Y. Chang<sup>2</sup>. <sup>1</sup>Chang Gang Memorial Hospital, Radiation Oncology, Taoyuan, Taiwan; <sup>2</sup>Chang Gang Memorial Hospital, Neurology, Taoyuan, Taiwan

**Background and Purpose:** Carotid artery stenosis (CAS) is one of the major complications of external irradiation (radiotherapy, RT) to the head and neck cancers. Few large-scale studies of CAS after radiotherapy were reported. We try to predict the severity, extent and progression of radiation-induced CAS in these patients and discuss its related factors.

**Methods:** In a cross-sectional study, CAS was detected by color-coded carotid duplex. We enrolled 290 consecutive Taiwanese patients of head and neck cancers with (RT group, 192 patients) or without (control group, 98 patients) receiving RT. Detailed review of cerebrovascular risk factors was documented. Multivariate regression was performed for analysis of independent factors for CAS.

**Results:** The mean duration after radiotherapy in the RT group was 4.9±3.9 years (median 3.8 years) and the mean dosage of irradiation was 6225±906 (median 6600) cGy on the neck. There was no statistically significant difference of age and common risk factors of cerebrovascular diseases between RT and control groups. The majority (82.3%) of CAS had more than one atherosclerotic plaques of any degree of stenosis in the RT group, and was significantly more than that of the control group ( $p < 0.001$ ). Significant ( $\geq 50\%$ ) stenosis was observed only in the RT group (19.8%,  $p < 0.001$ ). In all segments of carotid arteries, the summation of plaque scores was statistically significant higher in the RT group with highest score at both bulb bifurcations ( $p < 0.001$ ). Multiple linear regression analysis showed the increase of total plaque scores was independently associated with dosage of RT, age, time interval after RT and male gender.

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POSTER

**Papillary thyroid microcarcinoma: prognostic factors, management and treatment outcome in 228 patients**

N. Besic, G. Pilko, R. Petric, M. Hovevar, J. Zgajnar. *Institute of Oncology Ljubljana, Surgical Oncology, Ljubljana, Slovenia*

**Background:** Within the group of patients with papillary thyroid microcarcinoma (PTMC), the prognostic factors have not been well defined and the optimal treatment has not been proved. The aim of this study was to find out the factors associated with the tumor recurrence in patients with PTMC.

**Material and Methods:** A total of 228 patients with PTMC (189 females, 39 males; age 14–85 years, median 46 years) were treated at our Institute between 1975 and 2006; among them 98 patients had incidental PTMC. The data on patients' gender, age, extent of disease, pathomorphological characteristics, therapy, locoregional control, disease-free survival and disease specific survival were collected. Statistical correlation between possible prognostic factors and tumor recurrence was analyzed by chi-square analysis.

**Results:** The tumor diameter ranged from 0.1 to 10 mm (mean 6.1 mm). Initially, lymph node metastases were present in 56 patients (25%) and distant metastases in 1 patient (0.4%). Pathology revealed that, in 211 patients (92.5%), PTMC was confined to the thyroid and, in 17 (7.5%), the tumor invaded into surrounding tissue. The tumor was multifocal in 60 patients (26%). Primary surgical treatment consisted of total or near-total thyroidectomy in 189 patients (83%), lobectomy in 25 (11%) or subtotal thyroidectomy in 14 patients (6%), lateral lymph nodes dissection in 51 (22%) and central lymph nodes dissection in 23 (10%) patients. Radioiodine ablation of the thyroid remnant was performed in 111 patients (49%). During the follow-up period, the recurrence was diagnosed in 7 patients (6 locoregional and 1 distant). None of the patients with the tumor diameter of 6 mm or less had recurrent disease. There was no cancer related mortality. The median length of observation was 84 months (range 1–385). The 5-year, 10-year and 20-year disease-free survival was 98.5%, 98% and 93%, respectively. None of the patients died of disease. Incidentally diagnosed PTMC, tumor size, tumor differentiation and presence of lymph node metastases were the factors which correlated with tumor recurrence. Neither the extent of thyroid surgery nor radioiodine ablation of thyroid remnant correlated with tumor recurrence.

**Conclusions:** Patients with PTMC have a favorable long term prognosis. Lower recurrence rate was found in the patients with incidentally diagnosed

PTMC, and those with the tumor diameter  $\leq 6$  mm, with well differentiated tumor and without lymph-node metastases.

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POSTER

**Treatment for the patients with clinically lymph node-negative squamous cell carcinoma of the oral cavity**

W.I. Jang<sup>1</sup>, H.G. Wu<sup>1</sup>, C.I. Park<sup>1</sup>, K.H. Kim<sup>2</sup>, M.W. Sunh<sup>2</sup>, M.J. Kim<sup>3</sup>, P.H. Choung<sup>3</sup>, J.H. Lee<sup>3</sup>, J.Y. Choi<sup>3</sup>. <sup>1</sup>Seoul National Univ. Hospital, Department of Radiation Oncology, Seoul, South Korea; <sup>2</sup>Seoul National Univ. Hospital, Department of Otolaryngology and Head and Neck Surgery, Seoul, South Korea; <sup>3</sup>Seoul National Univ. College of Dentistry, Department of Oral and Maxillofacial Surgery, Seoul, South Korea

**Introduction:** Oral cavity is cosmetically and functionally important structure. It is not easy to find phase III study about oral cavity cancer in the literature, because the incidence is relatively low. There are still many debates concerning the optimal treatment of oral cavity cancer. A retrospective analysis for the patients with clinically lymph node-negative squamous cell carcinoma of the oral cavity was performed to evaluate treatment outcome and determine optimal treatment strategy.

**Materials and Methods:** From January 1990 through December 2004, 227 patients with squamous cell carcinoma of the oral cavity including mobile tongue, floor of mouth, gingiva, retromolar trigone, hard palate, and buccal mucosa received radiotherapy with curative intent. We retrospectively analyzed 69 patients with clinically lymph node-negative disease. There were 46 patients (67%) presented with early stage disease (T1 or T2). Forty-four patients (64%) had well-differentiated disease. The patients were divided into two groups according to the treatment modalities for local disease: those treated with surgery plus external beam radiotherapy (EBRT) ( $n = 43$ ) and those with EBRT alone ( $n = 26$ ). The median doses were 63.0 Gy (range; 45.0–70.2 Gy) in the former group and in 70.2 Gy (range; 61.2–72.0 Gy) in the latter, respectively.

**Results:** The incidences of occult metastasis were 60% for T1, 69% for T2, 100% for T3, and 39% for T4, respectively. Contralateral occult metastasis occurred only in two patients. After median follow-up of 27 months (range; 6–170), 24 patients had failed treatment as follows: local ( $n = 10$ ); regional ( $n = 10$ ); distant ( $n = 1$ ); local plus regional ( $n = 2$ ); and regional plus distant ( $n = 1$ ). Of the 10 patients who received salvage treatment with curative intent for loco-regional failure, 50% were salvaged. The 5-years overall survival (OS), disease free survival (DFS), local control (LC), and regional control (RC) rates for patients analyzed were 56%, 48%, 67%, and 78%, respectively. The 5-years OS, DFS, LC, and RC rates were 63%/ 42% ( $p < .01$ ), 65%/ 16% ( $p < .01$ ), 91%/ 21% ( $p < .01$ ), and 73%/ 88% ( $p = 0.12$ ) for surgery plus EBRT group/ EBRT alone group, respectively. Similarly, significant differences in OS, DFS, and LC between the treatment groups were found for patients with early stage disease. There were fewer regional failures in patients treated with neck dissection than in those without neck dissection, but the differences were not significant (21% vs. 23%,  $p = 0.70$ ).

**Conclusion:** The risk for occult metastasis in ipsilateral neck is high in patients with early squamous cell carcinoma of the oral cavity as well as advanced disease and therefore, elective treatment for ipsilateral neck should be considered. Excellent regional control can be achieved with EBRT alone for subclinical disease of the neck. However, EBRT alone for primary tumor treatment resulted in poor local control and combined treatment with surgery and EBRT appeared to be better treatment strategy.

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POSTER

**Impact of nuclear factor kappa B activity for local tumor controllability by radiotherapy in patients with T1/T2N0 laryngeal cancer**

K. Yoshida<sup>1</sup>, R. Sasaki<sup>1</sup>, Y. Okamoto<sup>1</sup>, Y. Ejima<sup>2</sup>, H. Nishimura<sup>3</sup>, Y. Ota<sup>3</sup>, M. Saitoh<sup>4</sup>, N. Otsuki<sup>4</sup>, K. Nibu<sup>4</sup>, K. Sugimura<sup>3</sup>. <sup>1</sup>Kobe University School of Medicine, Radiology, Kobe, Japan; <sup>2</sup>Dokkyo Medical School, Radiology, Utsunomiya, Japan; <sup>3</sup>Kobe University School of Medicine, Radiology, Kobe, Japan; <sup>4</sup>Kobe University School of Medicine, Head and Neck Surgery, Kobe, Japan

**Background:** External radiotherapy (ERT) plays a critical role in organ preservation in patients with early stage laryngeal cancer. From previous reports, 5-year local control rates were 80–90% in patients with stage I, and 65–85% in patients with stage II laryngeal cancer. Although surgical salvages have been developed in the latest decade, it seems to be unfortunate that local controllability by radiotherapy has not been improved in these two decades. Aberrant NF-kappa B activity has been associated with inflammatory disorders, carcinogenesis, and response to chemotherapy and radiotherapy. The purpose of this study are to investigate whether the NF-kappa B activity affects local tumor controllability and to assess that NF-kappa B could be a predictive marker for the radioresistant laryngeal cancer.