

## New proposal to revise classification for squamous cell carcinoma of external auditory canal and middle ear

**Hiroataka Shinomiya, MD, PhD<sup>1</sup>, Natsumi Uehara, MD, PhD<sup>1</sup>, Takeshi Fujita, MD, PhD<sup>1</sup>, Masanori Teshima, MD, PhD<sup>1</sup>, Akinobu Kakigi, MD, PhD<sup>1</sup>, Ryohei Sasaki, MD, PhD<sup>2</sup>, Ken-ichi Nibu, MD, PhD<sup>1</sup>**

<sup>1</sup>Department of Otolaryngology-Head and Neck Surgery, Kobe University Graduate School of Medicine, <sup>2</sup>Department of Radiation Oncology, Kobe University Graduate School of Medicine

### ABSTRACT

**Introduction:** Prognosis of the patients with advanced squamous cell carcinoma of external auditory canal and middle ear (SCC-EAC/ME) have been improved by advances in skull base surgery and multidrug chemoradiotherapy during the last two decades. T4 includes a wide range of sites of extension, and the prognosis can vary greatly depending on the site of extension. We will analyze the cases treated at our hospital and propose a staging system based on the prognosis. **Methods:** Ninety-five patients with SCC-EAC/ME who were treated between 1998 and 2017 were enrolled. The number of the patients with T1, T2, T3 and T4 were 15, 22, 24, 34, respectively. Oncological outcomes and prognostic factors were retrospectively investigated. **Results:** The 5-year overall survival (OS) rates of the patients with T1, T2, T3 and T4 were 93.3%, 95.2%, 84.7% and 42.9%, respectively. Among patients with T4, brain invasion ( $p=0.024$ ), carotid artery and/or jugular vein invasion ( $p=0.049$ ,  $0.040$ ) were found as significant poor prognostic factors. The 5-year OS rate of the patients with at least one of these factors (T4b) was significantly higher than that of the patients without these factors (T4a) (65.5% vs 25.5%,  $p=0.049$ ). **Conclusion:** We propose a new classification classifying T4 of modified Pittsburgh classification into two groups according to the prognostic factors; brain, internal carotid artery, and jugular vein.

## Prognostic factors after transoral resection of early hypopharyngeal cancer

**Keisuke Iritani, MD<sup>1</sup>, Tatsuya Furukawa, MD<sup>1</sup>, Masanori Teshima, MD, PhD<sup>1</sup>, Hiroataka Shinomiya, MD, PhD<sup>1</sup>, Naoki Otsuki, MD, PhD<sup>2</sup>, Ken-ichi Nibu, MD, PhD<sup>1</sup>**

<sup>1</sup>Department of Otolaryngology-Head and Neck Surgery, Kobe University Hospital, Kobe, Japan, <sup>2</sup>Department of Otolaryngology, Kindai University Hospital, Osaka, Japan

### ABSTRACT

**Introduction:** We aimed to investigate risk factors predictive of local recurrence and/or lymph node metastasis after transoral resection of early hypopharyngeal cancer. **Methods:** Forty-nine consecutive patients who underwent transoral videolaryngoscopic surgery (TOVS) as an initial treatment for hypopharyngeal cancer were included in this study. For univariate analysis, log-rank test was employed to assess the differences in local recurrence-free survival rates according to the following parameters: subsite, pT, horizontal margin, lymphatic invasion, vessel invasion, tumor thickness ( $> 4$  mm versus  $\leq 4$  mm), history of esophageal cancer, and multiple Lugol-voiding lesions (LVLs) in the esophagus. Cox regression analysis was used for multivariate models. Categorical variables were evaluated for their associations with lymph node metastasis using chi-squared test or Fisher's exact test. **Results:** The subsites of primary lesions were piriform sinus (PS) in 24 patients, posterior wall (PW) in 15 patients, and postcricoid (PC) in 10 patients. Thirty patients had esophageal cancer. Only LVLs remained as a significant risk factor on multivariate analysis ( $p=0.0395$ ; hazard ratio = 8.897; 95% confidence interval, 1.113–71.15). Most cases of local recurrence were satisfactorily controlled by repeated TOVS. Venous invasion ( $p=0.0166$ ) and tumor thickness ( $p=0.0092$ ) were significantly associated with lymph node metastasis on univariate analysis. **Conclusion:** Local recurrence was more frequent in patients with LVLs, but most of the cases were salvaged by repeated TOVS. Postoperative treatment should be considered in cases with venous invasion and/or tumor thickness greater than 4 mm to address the high rates of lymph node metastases.