

## **Analysis of the Relationship between Status of Nodal Metastasis, Clinical Stage and Histological Parameters of Oral Squamous Cell Carcinoma**

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More than 50% of patients with squamous cell carcinoma of the oral cavity have lymph node metastases and histological confirmation of metastatic disease is considered the most important prognostic factor. Among the patients with a clinically negative neck, the incidence of occult metastases varies with the site, size and thickness of the primary tumour. The TNM (Tumour/ Node/ Metastasis) staging system allows clinicians to categorise tumours of the head and neck region to assist with the assessment of disease status, management and prognosis. Management of clinically negative neck is debatable in patients with oral squamous cell carcinoma (OSCC). Although various therapeutic approaches are available, the data supporting any particular strategy do not appear to be consistent.

The stage of oral cancer is one of the main prognostic indicators. The main aim of this study was to evaluate the relationship between stage of tumour and the level of nodal metastasis and to analyse the relationship between primary site, pattern of invasion and extra capsular spread with the stage of tumour.

During the study period of 1999-2008, 292 patients of OSCC with neck dissections were included in the study. Clinical details including the clinical stage of the tumour and histopathological features such as level of differentiation, nodal status and pattern of invasion were assessed. The M: F ratio was 2.8:1. The age ranged from 24 to 86 years (mean age of  $57.8 \pm 9.98$  SD years). The commonest primary site was buccal mucosa followed by tongue. There were 123, 144 and 25 cases of well differentiated, moderately differentiated and poorly differentiated cancers, respectively. Of the 292 patients, 110 cases showed microscopically positive nodes and 80 of them showed extracapsular invasion. Almost all stage 1 and 2 tumours showed negative nodes and all cases of stage 3 and stage 4 tumours showed lymph node metastasis and this association was statistically significant for each site ( $P < 0.001$ ; chi-square test). There was a significant association between the stage of the tumour and extracapsular invasion ( $P < 0.001$ ; chi-square test). Pattern of invasion was another reproducible prognostic marker which showed a significant relationship with metastasis and extracapsular invasion ( $P < 0.001$ , chi-square test).

In conclusion, the present study provides valuable information with regard to treatment plan for patients with clinical stage 1 and 2 tumours (T1N0, T2N0). Tumours with stage 3 and 4 with pattern of invasion III or IV appears to be reliable predictors of metastasis and can be used as a tool to decide management of neck nodes. Therefore, clinical stage of the tumour should be regarded as a key factor in deciding the treatment of neck nodes in OSCC.