

Occult Nodal Disease and Survival in Oral Cavity Cancer: Analysis of Prognostic Factors

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Introduction:

The aim of the present study was to identify the risk of occult nodal disease and recurrences in clinical node negative oral cavity SCCs and determine the factors that are associated with an increased risk of occult nodal disease and recurrences.

Methods:

A retrospective case-control study of a prospectively maintained database of all oral cavity malignancies in a tertiary referral centre for head and neck malignancy between 2000 and 2021 was carried out. Inclusion criteria included oral cavity squamous cell carcinomas (SCC) that were treated surgically. The primary outcome was overall survival (OS), with secondary outcomes including disease-specific survival (DSS), recurrence-free survival (RFS) and occult nodal disease

Results:

166 patients were available for analysis. The overall rate of pN+ in patients with cN0 disease was 27.7% (n=46). The main factors associated with an increased risk of occult nodal disease were advanced T-stage (p=0.019, OR 1.137), degree of differentiation (p=0.028), a non-cohesive invasive front (p=0.0004, OR 2.18) and depth >1mm (p=0.001, OR 1.67). The 5-year OS, DSS and RFS of the entire cohort was 55%, 78% and 63% respectively. Multivariate analysis demonstrated poorer OS in patients with pN+ disease, perineural and bony invasion and poorer DSS in pN+ disease, perineural invasion and positive histological margins.

Conclusion:

The risk of occult nodal disease in Oral Cavity Malignancies in our cohort is 27.7%. Factors associated with increased risk of occult nodal disease were advanced T-stage, poorer degree of differentiation, a non-cohesive front and depth >1mm, while factors associated with worse OS and DSS were node positive disease, perineural and bony invasion.