"ACCURACY OF PALPATION, ULTRASONOGRAPHY AND COMPUTED TOMOGRAPHY IN THE EVALUATION OF METASTATIC CERVICAL LYMPH NODES IN HEAD AND NECK CANCER"

by

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ABSTRACT

Aims and Objectives: To evaluate the accuracy of preoperative clinical methods such as Palpation, Ultrasonography and Computed Tomography in comparison with post operative Histopathological findings in determination of metastatic cervical lymph nodes and also to assess whether combining these techniques increases the specificity and sensitivity of lymph node metastasis in oral Squamous Cell Carcinoma.

Material and Methods: 26 consecutive biopsy proven cases of oral squamous cell carcinoma who reported to the Craniofacial unit, SDM College of Dental Sciences and hospital, Dharwad were included in the study. The examination of neck was carried out and nodal status was evaluated by clinical palpation, CT scan and Ultrasound. The results were later confirmed by detailed histopathological examination of the surgically resected nodes. The results were presented in terms of sensitivity, specificity, predictive values, accuracy and p value.

Results: Among 156 levels which were evaluated in 26 patients, clinical palpation has 36.6 % sensitivity, 86.61% specificity, 51.6 % PPV, 77.6 % NPV and 72.43 % accuracy. USG has 54.5 % sensitivity, 85.71% specificity, 60.0% PPV, 82.75 % NPV and 76.92% accuracy. CT has 31.81% sensitivity, 93.75% specificity 66.66% PPV, 77.77% NPV and 76.28% accuracy. Palpation, USG, and CT findings were compared with histopathologic findings by Fisher's exact test and the 'P' value for palpation, US and CT were 0.003, 0.000, 0.000 respectively which are statistically significant.

Conclusion: From our study we would like to conclude that Ultrasound examination combined with CT gives a better assessment of the neck for nodal metastasis. Further study is required with larger sample size and additional diagnostic modalities like USG guided FNAC, Sentinel lymph node biopsy, PET and lymphoscintigraphy before its utility can be accurately assessed in the evaluation of lymph node metastasis for surgical management of neck in oral squamous cell carcinoma.

Keywords – Palpation; Ultrasonography; Computed Tomography; Histopathology; Cervical lymph node ; Squamous Cell Carcinoma.