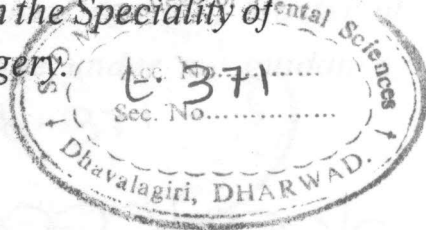


# **EVALUATION OF ULTRASOUND AS A NON-INVASIVE CLINICAL IMAGING TOOL IN PREOPERATIVE EVALUATION AND TREATMENT PLANNING OF CARCINOMA OF THE ORAL CAVITY**



*Dissertation Submitted to the Rajiv Gandhi University of Health Sciences, Bangalore, in Partial Fulfillment of the Requirements for the Degree of Master of Dental Surgery, in the Speciality of Oral & Maxillofacial Surgery.*



**March 2003**

**Dr. Ashwin Ramakrishnan**

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**Department of Oral & Maxillofacial Surgery  
S.D.M. College of Dental Sciences & Hospital,  
Dharwad.**

Oral squamous cell carcinoma ranks as the sixth most common malignancy world wide, and is associated with significant morbidity and mortality. Tumor control depends on the extent and location of the primary tumor, as well as the status of the cervical lymph nodes, which is the most important prognostic factor.

TNM staging is extensively used to choose treatment options, assess prognosis and compare results of various treatment protocols. The T stage of a tumor is assessed from its maximum surface diameter, and fails to take into account, the third dimension i.e. the depth of infiltration or tumor thickness. As a result of this a superficial tumor with a favourable prognosis may be grouped with the same stage as an unfavourable, deeply infiltrating lesion.

Tumor stage is of limited help in predicting cervical lymph node metastasis, and thus identifying those patients who might possibly benefit from an elective neck dissection. Majority of patients with clinically negative ( $N_0$ ) unnecessarily face the risks of a neck dissection, which in many cases is done as a prophylactic measure.