



## Level of Neck Node Metastasis and Type of Neck Dissection in Carcinoma Tongue with Clinically Negative Neck

**Dr. Vikas warikoo**

Assistant Professor, Department of Surgical Oncology, Gujarat Cancer & Research Institute (GCRI) Ahmedabad-380004, Gujarat

**Dr. Abhishek Jain**

Assistant Professor, Department of Surgical Oncology, Gujarat Cancer & Research Institute (GCRI) Ahmedabad-380004, Gujarat

**Dr. Ramesh Kumar**

M.Ch. Resident, Department of Surgical Oncology, Gujarat Cancer & Research Institute (GCRI) Ahmedabad-380004, Gujarat

### ABSTRACT

**Background-** To know if supraomohyoid neck dissection is sufficient for patients of carcinoma tongue with clinically negative neck.

**Methods-** Prospective study comprising of 100 patients with Ca tongue between. All patients underwent hemiglossectomy/ wide local excision tongue + MND-II. Final HPR evaluated for node metastasis and level of neck node.

**Results-** All patients underwent MND-II, occult neck node metastasis observed in 25 % patients. Level II was most common site of metastasis (50%) followed by level III. Level IV involvement observed in one patients. Level V were free in all patients.

**Conclusion-** It is better to do SOHND instead of MND II, in patients of carcinoma tongue with clinically negative node.

### KEYWORDS

Modified neck dissection (MND), supraomohyoid neck dissection (SOHND)

### Introduction

Tongue squamous cell carcinoma (TSCC) is one of the most common cancers within the oral cavity.<sup>1</sup> Incidence of tongue cancer in India is second highest in the world, as high as 14/100,000 per/year in Ahmedabad and 7.4/ 100,000 in Mumbai.<sup>2</sup>

### Material & Methods-

The present prospective study comprised of 100 patients who between 2010 to 2013, with diagnosis of oral carcinoma tongue and clinically negative node. After relevant clinical history and examination, punch biopsy were taken from the tongue lesion. Proven cases of squamous cell carcinoma were included in the study.

### Results-

All patients underwent wide local excision of tongue+MND II. Final histopathological findings were compared with pre op clinical and radiological findings. Relevant statistical methods were used to make the results. Various observations were made as following-

**Table 1 showing distribution according to age & sex**

Age group(yrs)	Male(n=64)	Female(n=36)	Total(n=100)
31-40	5	4	9
41-50	11	6	17
51-60	29	15	44
61-70	10	6	16
>70	9	5	14

Present study was male predominant study, having a total of 64 males out of total 100 patients. Mean age was 58.13 years. Age of youngest patient was 30 years while that of oldest patient was 76 years.

**Table II showing level of cervical node involvement**

Level	Number	Percentage
Ia	2	8
Ib	2	8
II	13	52
III	7	28
IV	1	4
V	0	0

Level II is the most common site for cervical node involvement i.e. 52% followed by level III i.e, 28%. Level IV & V least common site.

**Table III showing according to cT & pT**

	pT1	pT2	Total
cT1	32	16	48
cT2	4	48	52
Total	36	66	100

**Table IV showing relation between pT & pN**

	No. of patients	No. of N +ve	% of N +ve
pT1	35	5	15%
pT2	65	20	31%

Occult neck node metastasis was observed in 25% patients. Number of occult neck node positive patients were 15% & 31% with pT1 & pT2, respectively.

Discussion- Neck metastasis is the most important prognostic factor in head and neck squamous cell carcinomas (SCC). On account of this widely demonstrated fact, management of neck disease in head and neck cancer has been considered one of the most important aspects of treatment.

The mean age in the present study was 58.13 years. Nithya et al, Helsinki, Tampere and Kuopio conducted similar studies with mean age of 52.6 years, 59.5 years, 65 years and 64 years, respectively. So, the mean age of the above studies are as per with the mean age of present study.

In the present study there were 100 cases in all, out of which 64 were males and 36 were females.

**Table V showing comparison of M:F**

Study	Total no. of patients	Male: Female
Kumar T et al <sup>3</sup>	60	44: 16
Nithya et al <sup>4</sup>	75	45:30
Spiro RH et al <sup>5</sup>	52	28:24
Present study	100	64:36

All the above studies reported predominance of carcinoma tongue in males which is consistent with the present study.

In the present study, level II cervical nodes are the most common station for metastasis. Results of other similar studies are as follows-

**Table VI showing comparison between levels of cervical node involvement**

Levels	Kumar et al (%) <sup>3</sup>	Nithya et al (%) <sup>4</sup>	Present study (%)
I	15	18.2	16
II	45	36.4	52
III	30	16.1	28
IV	10	8	4
V	0	0	0

Similar studies conducted by Kumar et al and Nithya et al and showed that level II is the most common site followed by level III for metastasis in early tongue carcinoma. Results of present study are as per the above studies regarding cervical nodes metastasis.

Naaj EI conducted a study to know the Incidence of oral cancer occult metastasis and survival of T1-T2N0 oral cancer patients and found the frequency of occult metastasis from tongue carcinoma was 34%.<sup>6</sup>

Ho CM conducted a similar study to know the Occult lymph node metastasis in small oral tongue cancers and noticed the incidence of occult neck metastasis was 42%.<sup>7</sup> Fukano et showed the incidence of occult neck metastasis was 30%.<sup>8</sup> In the present study occult neck metastasis found in 25% cases.

### Conclusion-

In patients of ca tongue with clinically negative neck node, MND-II should be avoided. In these patients neck treatment can be done with SOHND, less morbid procedure than MND-II.

### References-

- Jemal A, Siegel R, Xu J, Ward E. Cancer statistics, 2010. *CA Cancer J Clin.* 2010;60:277-300.
- Perkin DM, Whelan SL, Ferlay J, Raymond L, Young J, Eds Cancer incidence in five continents IARC Sci Pub no 143, Lyon, France. 1995.
- Kumar T, Patel M. Pattern of Lymphatic Metastasis in Relation to the Depth of Tumor in Oral Tongue Cancers: A Clinico Pathological Correlation. *Indian J Otolaryngol Head Neck Surg.* 2013 Jul; 65(Suppl 1): 59-63.
- Nithya C, Pandey M, Naik B, Ahamed IM. Patterns of cervical metastasis from carcinoma of the oral tongue. *World J Surg Oncol.* 2003 Jul 3;1(1):10.
10. Spiro RH, Huvoos AG, Wong GY, Spiro JD, Gnecco CA, Strong EW. Predictive value of tumor thickness in squamous carcinoma confined to the tongue and floor of the mouth. *Am J Surg.* 1986;152:345-50.
- El-Naaj IA, Leiser Y, Shveis M, Sabo E, Peled Incidence of oral cancer occult metastasis and survival of T1-T2N0 oral cancer patients. *J Oral Maxillofac Surg.* 2011 Oct;69(10):2642-79
- Ho CM, Lam KH, Wei WI, Lau SK, Lam LK. Occult lymph node metastasis in small oral tongue cancers. *Head Neck.* 1992 Sep-Oct;14(5):359-63.
- Fukano H, Matsuura H, Hasegawa Y, Nakamura S. Depth of invasion as a predictive factor for cervical lymph node metastasis in tongue carcinoma. *Head Neck.* 1997;19:205- 10.