



# Oral & Maxillofacial Cancer: An Analysis

**Dr. Manik Saha**  
Associate Professor

**Dr. Sharmista Banik Sen**  
Senior Resident

Department of Dental Surgery  
Tripura Medical College & Dr.BRAM Teaching Hospital, Agartala, Tripura

## Introduction

Cancer being a genetic disorder involves multiple alteration of the genome progressively accumulated during a protracted period, the overall effects of which surpasses the inherent reparative ability of the cell. 90% of all malignant tumour of oral cavity are S.C.C. Other tumour types are minor salivary gland tumour, Sarcoma, Lymphomas & Melanoma. The anatomical structures of oral & maxillofacial region are complicated and closely related to facial contour, function, esthetics, thus seriously influencing the quality of life of patients.

## Aims & Objective

### To study the Oral Squamous Cell Carcinoma (S.C.C) in respect to:-

- (a) Etiology (b) Affliction between both the sexes (c) various sites of oral cavity with or involving the jaw bones or facial bones. (d) surgical modalities adopted and (c) Outcome of the treatment.

## Materials And Methods

A sample of 15 patients with oral cancers were selected for this study from our department, out of which 10 patients were operated after diagnosis of Squamous cell carcinoma and remaining patients were sent for Radiation or chemotherapy, after having histological report confirmation following incisional biopsy. After surgical excision in all the cases, tissue had sent for Histopathological examination for border clearance, nodal metastasis status and further confirmation.

## Inclusion criteria for patients

- (a) Patients with no history of radiation therapy  
(b) Patients who reported after diagnosis of oral cancer.

## Types of S.C.C.

- (a) ulcerative (b) Infiltrative & (c) exophytic type

## Types of Gradation

- (a) well differentiated (b) moderately differentiated & (c) poorly differentiated

## Risk Factors

- (a) Tobacco smoking (b) smokeless tobacco users (c) Betel nut chewing (d) heavy alcohol consumption (e) reverse smoking (f) poor oral hygiene (g) HPV (h) syphilis (i) OSMF (j) erosive lichen planus (k) sun light exposure (l) erythroplakia etc.

**Results-** The result of the study is being tabulated in Table below:

| NO | SEX | AGE | ETIOLOGY          | SITE OF INVOLVEMENT              | NAME OF SURGERY                                     | ANESTHESIA | COMPLICATION       | SURVIVAL RATE   |
|----|-----|-----|-------------------|----------------------------------|---|------------|--------------------|-----------------|
| 1  | M   | 52  | Tobacco Chewer    | Buccal mucosa                    | Command operation with RND                          | G.A        | NIL                | 6 yrs           |
| 2  | M   | 50  | Tobacco Chewer    | Rt Buccal mucosa                 | Rt. Hemimandibulectomy with RND+Reconstruction      | G.A        | NIL                | 5 yrs           |
| 3  | M   | 60  | Smoker            | Molar-ramus area+Cheek mandible  | Rt. Hemimandibulectomy with RND+Reconstruction      | G.A        | Dehiscence of flap | 4 yrs           |
| 4  | M   | 63  | Betle nut chewer  | Lt. Buccal Mucosa                | Lt. Posterior mandibular +alveolectomy+SOND         | G.A        | Tracheostomy site  | 2 yrs           |
| 5  | M   | 70  |                   | Lt Maxilla+infra temporal fossa  | Radical maxilectomy+RND+Reconstruction              | G.A        | NIL                | 1 yr            |
| 6  | M   | 73  | Betel nut chewer  | Rt. Side of neck                 | Excision +RND+Reconstruction                        | G.A        | NIL                | 7yrs-till date  |
| 7  | M   | 55  | Betel nut chewer  | Rt. lateral border of the tongue | Wide excisional Biopsy+SOND                         | G.A        | NIL                | 6 yrs-till date |
| 8  | M   | 65  | Sunlight exposure | Tip of the nose                  | Excision +Reconstruction with fore head finger flap | G.A        | NIL                | 7yrs            |
| 9  | M   | 42  | Tobacco Chewer    | Rt. Buccal Mucosa                | Excision+RND  | G.A        | NIL                | 6yrs            |
| 10 | M   | 60  | Betel nut chewer  | Lt. Buccal Mucosa                | Excision+RND+Reconstruction                         | G.A        | Flap dehiscence    | 4 yrs           |

## Statistics

10 patients were operated.  
Tobacco Chewer: Betel nut chewer-3.5:2  
Male: Female-9:1

RND: SOND-7:2

Occurrence in cheek mucosa-60%  
Survival Rate-40.5%

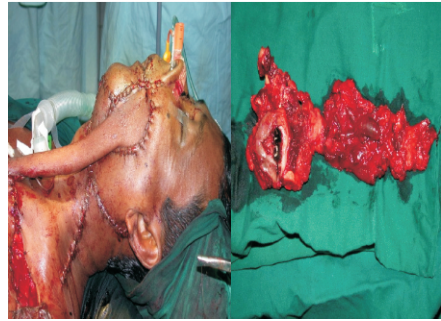
## Review of Literature

Though incidence of oral cancer is generally high in Indian population. North East India being the major centre of high disease burden, and gradually increasing in nature (Bhattacharjee et al., 2006. Moor et al.) Oral cancer is the 11th most common cancer globally (Steward & Kuhl, 2003). In developed countries, cancer is second most cause of death. According to the WHO report 2004, cancer accounted for 7.1 million death in 2003. Overall number of new cases are expected to rise by 50% in next 20 years (WHO, 2003). In south central Asia cancer of oral cavity ranks among the three most common type of cancer. In India age standard incidence rate is 12.6 per 1 lakh population (WHO report, 2004). Oral squamous cell carcinoma is the most common

neoplasm of oral cavity account for more than 90% of total cancer mortality in India (PARK, 1994). Cancer epidemic in developed countries is due to combined effect of aging



,population and increasing level of Risk factors. It has been estimated that 43% of Cancer death world wide are due to tobacco,unhealthy diet,physical inactivity,infection(Stewart & Kleihes,2003)  
 A Pre-op,Intra-op & Post-operative photograph of S.C.C buccal mucosa.  
 A Pre-op,Intra-op & Post operative photograph of S.C.C on tip of the Tongue.



### Discussion

SCC has long been considered to be a tumour of the elderly and has been seen only sporadically before 3rd decade of life. In oral study,the average age is in agreement with the study of Oliver et.al mostly in the late 50s with male predominance. Andre et al. observed a deleterious effect of alcohol even with non-smokers. The study conducted here shows betel nut-pan chewing to be the most causative reason for S.C.C,followed by Tobacco chewing. The site of occurrence of it was found to be mostly in the buccal mucosa ,floor of the mouth,tongueand involving the mandible, maxilla, facial bone with or without neck –nodal metastasis. origin depending on the treatment modalities were chosen starting from from wide excision to RND;SOND & Reconstruction with graft

### Conclusion

It is of utmost important to note that the survival rate of oral cancer has not been raised significantly in the last 30 years according to the USA database,although important break through in oral cancer management has been done.

### References

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