

## Clinicopathological Study of Premalignant And Malignant Lesions of Oral Cavity

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### Abstract

**Aims & Objectives:** To study different types of premalignant and malignant lesions of oral cavity with different histological changes in these lesions

**Materials And Methods:** Study is conducted on OPD patients of dept. of ENT in SCB MCH between 2012 to 2015.

**Result:** Both premalignant and malignant lesions are common over age group of 50.

Male preponderance is found. Tobacco addiction is main predisposing factor.

Leucoplakia and Squamous cell carcinoma are the commonest premalignant and malignant lesions respectively.

Buccal mucosa is the commonest site of pathology.

**Conclusion:** By this study, analysis of etiopathology and predisposing factors can be done so that early diagnosis and successful treatment can be done.

**Keywords:** Leukoplakia, Malignant lesion, Oral cavity, Premalignant lesion, Squamous cell carcinoma

Date of Submission: 01 -08-2017

Date of acceptance: 23-08-2017

### I. Introduction

Head and neck cancer continues to be one of the most common cancers in our country among which oral cavity cancer is major one. The importance of oral cancer lies in its preventability and high potential of curability. Altered food habits and pollution hazards have resulted in exponential rise in incidence of malignancies in last few decades. In USA and UK malignant tumours of oral cavity accounts for less than 4%, whereas in India it accounts for 10% of total cancers. Incidence is high among people who chew betel leaves with nuts and tobacco. Oral tumors are one of the most challenging tumors regarding their good prognosis in early diagnosis & very difficult control in advanced stages. Large number of inflammatory keratotic, premalignant, and malignant conditions may be detected on macroscopical inspection and palpation particularly important for otolaryngologists.

### II. Aims and objectives

1. Study the pattern and presentation of different types of premalignant and malignant lesions in the oral cavity.
2. To find out any association of specific epidemiological & etiological factor such as life style, habits with these lesions.
3. To study the histopathological changes in these lesions.

### III. Materials And Methods

The present study was conducted in the Department of E.N.T. and Head & neck surgery S.C.B. Medical College, Cuttack during the period October 2012 to October 2015. As a whole, 100 consecutive cases each of premalignant and malignant lesions were studied. A careful and thorough clinical examination of the oral cavity was carried out for any abnormal mucosal change. The patients with specific mucosal changes were studied in detail. In all these patients with abnormal mucosal change, cytological and histopathological examination was done.

### IV. Observations

Table 1. Age distribution:

Age Group In Years	Premalignant	Malignant
Below 30	18 (18%)	1 (1%)
31- 40	20 (20%)	10 (10%)
41-50	26 (26%)	22(22%)
51-60	26 (26%)	27(27%)
61-70	6 (6%)	25(25%)

Above 71	4 ( 4%)	15 (15%)
	100	100

Premalignant lesions are more in age group of 41- 60 years and malignant lesions between 51-70 years.

**Table 2. Habits:**

Habits	Premalignant Lesions	Malignant Lesions
Betel And Nuts	6	8
Betel And Tobacco	72	84
Tobacco Paste	20	32
Snuff	6	8
Smoking	22	24
Alcohol	8	12
No Specific Habits	3	1

The above table shows that only one person with oral malignancy and three in pre- malignant group had no habit. Rest of the cases was found to be associated with tobacco in one form or the other.

**Table3. Presenting symptom [Premalignant]**

Symptoms	Number Of Cases	Percentage
White Patch	76	76
Ulcer In Mouth	28	28
Burning Sensation	14	14
Inability To Open Mouth	10	10

The majority of patients with pre malignant lesions complained of white patch in oral cavity.

**Table4. Presenting symptom [ Malignant]**

Symptoms	Number Of Cases	Percentage
Ulcer	64	64
Growth	36	36
Bleeding	25	25
Swelling In Neck	20	20
Pain	36	36
Any Other (Discharging Sinus, Trismus)	22	22

In malignant cases the majority complained of an ulcer in mouth (64%).

**Table5. Site of lesion**

Site	Premalignant	Malignant
Cheek	62	62
Lip	20	14
Tongue	9	12
Gum	6	8
Palate	3	4
Total	100	100

Mucosal changes were more marked in cheek that to be more in lower gingivobuccal sulcus

**Table6. Types of premalignant lesion**

Types	Number	Percentage
Leukoplakia Alone	80	80
Submucosal Fibrosis Alone	14	14
Nicotine Stomatitis	2	2
Leukoplakia And Sub Mucous Fibrosis	3	3
Erythroplakia	1	1

Leukoplakia (Figure.1) was the commonest premalignant lesion. We got a single case of erythroplakia. (Figure.2)



Figure-1 Leukoplakia



Figure-2 Erythroplakia

**Table7.** Morphology of malignant lesion

Type	Number	Percentage
Exophytic	28	28
Ulcerative	64	64
Verrucous	8	8
Total	100	100

Most of the malignant lesion were ulcerative in nature (64%) (Figure 3), 28% were exophytic in nature.



Figure-3 Ulcerative lesion of tongue

**Table 8.** Histopathology of malignant lesion

Histopathology	Number	Percentage
Squamous cell carcinoma	98	98
Adenoid cystic carcinoma	0	0
Muco epidermoid carcinoma	2	2
Total	100	100

98% of malignant lesion were squamous cell type (Figure-4) followed by mucoepidermoid carcinoma (2%)

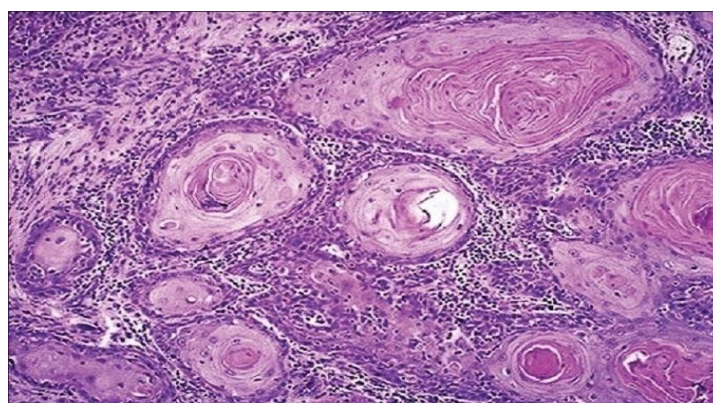


Figure-4 Squamous cell carcinoma.

## V. Discussion

Baric et al<sup>1</sup> observed that the prevalence of oral leukoplakia was significantly higher in persons of 50 years and above. In the present study the maximum numbers of cases were seen to be between 41-60 years. Male and female ratio of head and neck cancer was 3:1 in the study of Herity et al<sup>2</sup>. Halnan<sup>3</sup> reported the male: female sex ratio to be 1.6:1. In the present study, male: female ratio was 3.7:1 for pre cancerous lesion and 1.6: 1 for oral cancers. So male predominance is well observed in both the groups. The presenting symptom of patient with premalignant lesions was mostly white patch (76%). Patient with sub mucosal fibrosis mostly present with burning sensation in the mouth while eating and inability to open the mouth completely. Patient with erythroplakia mostly present with an ulcer in the mouth. The majority of patient with oral malignancies presented an ulcer in mouth (64%). This finding is more or less similar to that reported by Rosai and Halnan<sup>4</sup>. Panda and Khadanga<sup>5</sup> reported that maximum number of leukoplakic patches occur in buccal mucosa, then in lip and tongue. In our presented study also 62% premalignant lesions were in buccal mucosa, in 20% cases lesion was in lip, 9% in tongue. This finding almost coincides with the findings of above mentioned authors. Leukoplakia was the commonest premalignant lesion. Erythroplakia and melanoplakia was more marked in persons who had double habit of chewing and smoking. Sub mucous fibrosis was present in 14% cases. 3% of patients presented with both leukoplakia and sub mucous fibrosis. This almost coincides with the finding of Panda and Khadanga and smith et al. In the present series squamous cell carcinoma is the commonest variety of oral cancer. Ulcerative variety was present in 64%, exophytic in 28% and the verrucous in 8% of cases of oral malignancies. This almost coincides with the reports of Bahadur and Bose<sup>6</sup> and Rosai .

## VI. Conclusion

Gradual increase in oral malignancy especially its late presentation is a challenging problem. Analysis of etiopathology shows poor oral hygiene and tobacco addiction which can easily be prevented. Since early diagnosis remains essential factor for successful treatment, awareness should be spread by physicians and social organizations for early check up and diagnosis.

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\*Pallavi Nayak. "Clinicopathological Study of Premalignant And Malignant Lesions of Oral Cavity ." IOSR Journal of Dental and Medical Sciences (IOSR-JDMS) 16.8 (2017): 20-23.