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Short Communication

A study of oral cavity lesions in a tertiary care industrial hospital

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ABSTRACT

Oral cavity lesions can be classified as non-malignant, premalignant and malignant lesions. Diagnosis is confirmed and established by clinical evaluation, biopsy and histopathology. Very few studies have been reported in industrial hospitals. The main aim of the study was to report the various non-malignant, premalignant and malignant oral lesions in our setup. It was a retrospective study conducted at IISCO Steel Plant, Burnpur Hospital. Data of oral lesion patients in whom biopsies conducted followed by histopathology were collected from the hospital records. Various non-malignant lesions, premalignant lesions such as leukoplakia, malignancies such as squamous cell carcinoma were reported. Most of the cases of malignancy and premalignant lesions had tobacco usage which is an occupational hazard at workplace described in literature. Few cases of premalignant lesion and malignancy had negative history of tobacco consumption. It was concluded that early diagnosis helps in accurate treatment of oral cavity lesion and secondly in premalignant oral lesions associated with tobacco usage after confirmation of diagnosis and subsequent behavioural counselling patient compliance in tobacco cessation improves.

Keywords: Biopsy, Cavity, Histopathology, Oral

INTRODUCTION

Lesions of the oral cavity are important clinical pathologies seen in an ENT OPD. Such lesions after clinical evaluation are biopsied and sent for histopathological examination to establish a definitive diagnosis and plan for further treatment. The lesions can be classified as nonmalignant, premalignant and malignant lesions. Oral cancer is the sixth most common cancer in the world.[1-4]

Oral cancers accounts for 40 % of all cancers in Indian subcontinent while in the West it accounts for 2–4% of the malignancies.[2] The diagnosis of oral cancers at an early stage can improve the treatment outcomes. Occupational health programs have incorporated awareness, risk factor assessment, tobacco cessation and targeted oral cancer screening to detect early precancers and cancers at workplaces.[5] The National program for prevention and control of cancer, diabetes, cardiovascular disease and stroke (NPCDCS) also. focuses on screening, diagnosis, identification and addressing modifiable risk factors of oral cancer, referral of oral precancerous conditions and community-level follow-up.[5,6]

While there are many original research studies on oral malignant and premalignant lesions which have been conducted in medical colleges and cancer hospitals, very few studies have been conducted in an industrial, hospitals. Hence this study has been conducted in our institute which is an industrial hospital.

Aim

To report the various nonmalignant, premalignant and malignant lesions of the oral cavity. To find out the association of tobacco habits and the occurrence of premalignant and malignant lesions.

METHODS

This is a retrospective study based on the hospital records of the patients evaluated in ENT Department, SAIL ISP Burnpur hospital between 2022 to 2024. The convenience sample included 30 patients who presented to the ENT Department during this period.

Authors included those patients aged 21 years and above who presented to the ENT Department with lesions of the oral cavity and were diagnosed on the basis of history taking, clinical examination and biopsy to reach at a diagnosis. Authors excluded those patients who have been previously diagnosed elsewhere and have been taking treatment. Pregnant and lactating females were also excluded from the study. Details were entered in Microsoft excel sheet.

RESULTS

In the study 13.3% of lesions were malignant,26.6% of lesions were premalignant,60% of lesions were nonmalignant (Table 1).

In the study the commonest site of lesion was tongue followed by buccal mucosa (Table 2). In the study lesions reported more in males (Table 3).

In the study commonest age group affected was >50 years (Table 4). 75% of premalignant and malignant lesions were associated with tobacco usage (Table 5). After behavioural counselling in premalignant lesions most of the patients reduced their tobacco use (Table 6).

Table 1: Distribution of oral cavity lesions.

Non malignant	Premalignant	Malignant
Mucocele-1	Leukoplakia-8	Oral cancer-4
Apthous ulcer-1		
Chronic granulation-3		
Hemangioma-3		
Squamous papilloma-8		
Pyogenic granuloma-1		
Fibroepithelial polyp-1		
Total 18 (60%)	Total 8 (26.6%)	Total 4 (13.3%)

Table 2: Site of lesions.

Site of lesion	No. of patients
Tongue	13
Buccal mucosa	10
Lip	5
Palate	2

Table 3: Age distribution of oral lesions.

Age group (in years)	No. of patients (%)
21-35	4 (13.3)
36-50	7 (23.3)
>50	19 (63.3)

Table 4: Gender distribution of oral lesions.

Gender	No. of patients (%)
Males	19 (63.3)
Females	11 (36.6)

Table 5: Association of premalignant and malignant lesions with tobacco use.

Lesion	Tobacco use (%)	No habits (%)
Leukoplakia	6 (75)	2 (25)
Oral cancer	3 (75)	1 (25)

Table 6: Tobacco cessation status after behavioural counselling in premalignant lesions (tobacco cessation clinic).

No change	Reduced use	Stopped	Lost to follow up	Relapse
1	4	0	1	0

DISCUSSION

Whenever a patient presents to the otorhinolaryngology outpatient setting with oral lesions, suspicious lesions should be biopsied to confirm the diagnosis. Also screening of oral cavity helps in early detection of many suspicious premalignant and malignant lesions. In our setup screening of lesions is done in ENT OPD and in Occupational Health Services Centre for oral lesions (Figure 1). An understanding of epidemiology of lesions and risk factors for the premalignant and malignant lesions is also very important for a clinician.

In the study 13.3% of lesions were malignant,26.6% of lesions were premalignant, 60% of lesions were nonmalignant. Whereas, in another study done by researchers in patients visiting a tertiary care centre 11.9% of lesions were malignant, 21.2% of lesions were premalignant, 66.46% of lesions were nonmalignant.[1] In the study the commonest site of lesion was tongue followed by buccal mucosa. In another study the most common site of lesion was buccal mucosa followed by tongue.[1] According to a study the most common site of lesion was lip.[7] In yet another study the most common site of oral cavity affected was found to be the buccal mucosa (50%), followed by anterior 2/3rd of the tongue (34.3%).[8]

In the study the lesions were reported more in males. According to a research study lesions were more

commonly seen in male (57%) than in females (43%).[7] In another study amongst the lesions 61.7% were reported in males and 38.2% were reported in females.[8] Another recent study showed male predominance.[9] In the study the commonest age group reporting the lesions was >50 years. According to a study the more common age group (47.6%) was 20- 40 years followed by the age group above 60 years (19%).[7] While in another study the maximum number of patients who presented fell into the age range of 21-40 years (44.5%) followed by the age range of 41-60 years (28.1%).[8]

Figure 1 (A-I): Screening of different areas of oral cavity in preventive oncology clinic for oral cancer.

In the study most of the premalignant and malignant lesions were associated with tobacco use. Chewing tobacco was found to be the most frequent habit associated with premalignant and malignant lesions. 10 This is similar to other studies conducted at various centres. In studies carried out by Gupta et al, Mathew et al, Goyal et al and TR Saraswathi et al, it was concluded that tobacco chewing and smoking had a very strong association with oral mucosal lesions, especially with premalignant and malignant lesions.[1,11-14]

Very few studies have been done which focused on tobacco cessation at workplace. In one such study, the Department of Preventive Oncology at the Tata Memorial Hospital (TMH) initiated a workplace tobacco cessation program and the main aims were to study the prevalence of tobacco consumption in its various forms among industrial employees and to provide professional help for quitting tobacco.[15] In our study most of the patients having diagnosis of premalignant lesions with history of tobacco reduced their tobacco consumption following behavioural counselling. In the ENT department and occupational health services centre, we try to change the tobacco habits of industrial workers through behavioural counselling. Focus is given in finding out about previous attempts of quitting, reasons for relapse and management, withdrawal symptoms management, craving management etc. Also, oral cancer awareness month is celebrated in ENT Department in which education is given on the preventive aspect of oral cancer (Figure 2). Guest faculty of Head and Neck Oncology have been also invited to create awareness amongst the employees and their family members.

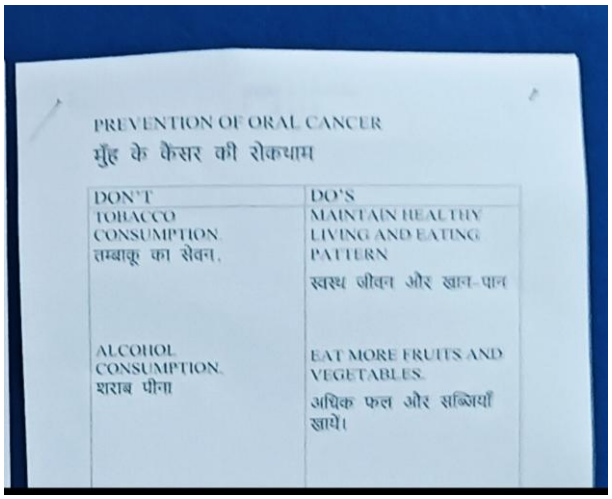

Figure 2: Oral cancer awareness activity in ENT OPD.

The main limitations were small sample size of study participants, short duration of study, other risk factors for premalignancy and malignancy were not studied. The relation between occupational carcinogens and oral cancer has not been evaluated in this study.

CONCLUSION

Early diagnosis must be established quickly by clinical history, examination, biopsy followed by Histopathological examination for accurate treatment. Tobacco consumption is an important risk factors for premalignant and malignant lesions, Tobacco cessation through behavioural counselling must be done in industrial workers.

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