

Prevalence of Oral Mucosal Lesions and Premalignancy in Patient with Oral Habits

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I. Introduction

Oral mucosal lesion (OML) is known as any abnormal alteration in color, surface aspect, swelling, or loss of integrity of the oral mucosal surface⁽¹⁾. Although a proportion of OMLs are benign and require no active treatment, some may present with significant pathology. Of particular importance are oral potentially malignant disorders which may progress into malignancies⁽²⁾. Besides, OMLs can interfere with daily quality of life in affected patients through impact on mastication, swallowing, and speech with symptoms of burning, irritation, and pain. OMLs have many etiologies as bacterial or viral or fungal infections, local trauma or irritation, systemic diseases, and excessive consumption of tobacco, betel quid, and alcohol⁽³⁾. Oral malignancies collectively form the sixth most common type of cancer in the world⁽⁴⁾. The Indian subcontinent has long been regarded as the epicentre of oral cancer around the globe and is recognized as a major health problem⁽⁵⁾. It imposes a huge burden in terms of diagnosis, survival and the use of already stretched out health care facilities in the course of treatment. The purpose of this study was to determine the number, types, risk factors, prevalence and location of oral mucosal lesions in patients who attended ENT OPD in our setup.

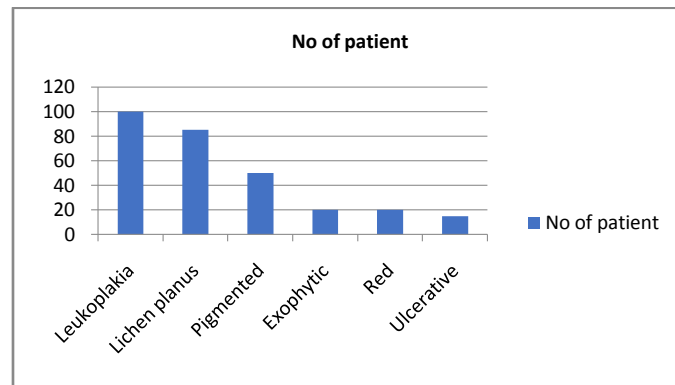
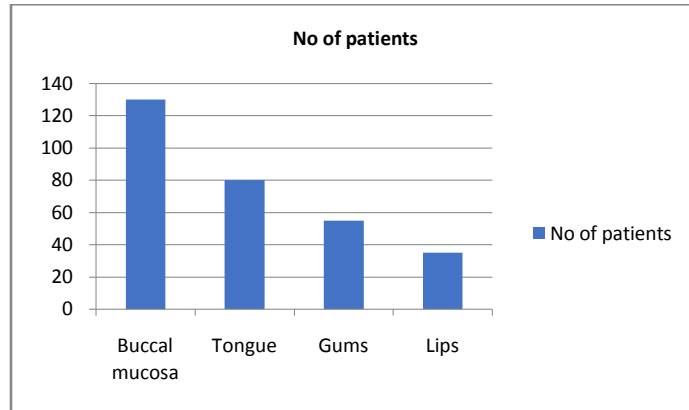
II. Material And Method

A total of 5567 patients visited the Out Patient Department of ENT of Mahatma Gandhi Hospital and Medical College, Jaipur, Rajasthan during the period of August 2017 to August 2018 among which 300 met the inclusion criteria and these constituted the study sample. Examination was carried out in each individual. Intraoral soft tissue examination was performed in over 300 patients. The lesions were divided into six major groups: white, red, pigmented, ulcerative, exophytic and miscellaneous.

III. Result

In present study, a total of 300 patients were selected showing various types of mucosal lesions in which leukoplakia was the most common i.e 100 patients (33%) followed by lichen planus in 85 patients (28%), followed by pigmented lesions in 50 patients (16%), followed by exophytic lesions then red lesions and then ulcerative lesion. Out of 300 patients 200 were males (66%) and 100 were females (33%); showing male preponderance. Our study shows the age distribution of lesion among the different age group, most common being the age group 36 years to 46 years i.e 130 patients (43%), followed by 26 to 35 years i.e 98 patients (32%), followed by 17 to 25 years age group i.e 60 patients (20%). Least common age group is 9 to 12 years. Our study of 300 patients shows sites of oral lesions, most common site being buccal mucosa i.e 130 patients (43%) followed by tongue i.e 80 patients (26%), followed by gums i.e 55 patients (19%) followed by lips. In buccal mucosa, most common is leukoplakia i.e 50 patients (38%) followed by lichen planus i.e 30 patients (23%) followed by ulcerative, pigmented and exophytic lesions. Our study shows the type of lesions found over the tongue, most common being leukoplakia and lichen planus i.e 25 patients (31%) followed by ulcerative, exophytic and pigmented i.e 10 patients each. Lesions over gums, most common being white/leukoplakia i.e 20 patients (36%) followed by lichen planus i.e 15 patients (27%) followed by ulcerative and pigmented i.e 10 patients each. Lesions over lip, most common being the white/ leukoplakia i.e 15 patients, followed by ulcerative lesions i.e 10 patients, followed by pigmented lesions i.e 7 patients and the least common being the exophytic lesion.

Majority of the patients who presented with oral mucosal lesions had association with addiction (79 %). Mucosal lesions were mostly associated with smokeless form of tobacco, which includes tobacco chewing (40 %), gutkha (25 %) and betel nut chewing (20 %), as compared to smoked form, which includes smoking (15%).



Oral habits	No of patients (%)
Tobacco chewing	40%
Gutkha	25%
Betal nut	20%
Smoking	15%



Leukoplakia buccal mucosa



Leukoplakia left lateral border tongue

IV. Discussion

Oral mucosal lesions were found to be more prevalent in men than women. This could be due to the very high number of male tobacco chewing as compared to females. In our study Leukoplakia was most commonly found on the buccal mucosa followed by the tongue, gums and lip.

Rashmi et al⁶ concluded that most common lesion in their study was found to be aphthous ulcers (44.5 %), followed by leukoplakia (12.9 %).

In our study the most common risk factor associated with oral mucosal lesions and premalignant lesions is tobacco chewing (40 %), gutkha (25 %) and betel nut chewing (20 %), as compared to smoked form, which includes smoking (15%) and our results coincide with study performed by Rashmi et al⁶.

Our study shows that out of 300 patients 200 were males and 100 were females; showing male preponderance. This is also supported by the studies done by El Toum et al⁷ who also found male preponderance in oral mucosal lesions.

The prevalence of oral mucosal lesion (3.39%) in the rural areas of Jaipur is well supported by study done by patrik p et al⁸ showing the prevalence to be 2% of oral mucosal lesions. This could be due to the high number of participants in our study consuming areca nut and gutkha. The signs seen were generalised blanching, presence of fibrotic bands in the oral mucosa and the patients complained of burning sensation. Oral mucosal lesions were mostly seen in the 41-60 age groups which could be attributed to the habit of chewing paan and gutkha prevailing in this age group.

In our study most common site being buccal mucosa i.e 130 patients i.e.(40%) followed by tongue i.e 80 patients and is well supported by study done by Yadav et al⁹ that concluded that buccal mucosa is the most common site for oral mucosal lesions (20.25%).

A few reasons proposed for the increased incidence of OML in India:

1. The low cost, easy availability, attractive packaging, and aggressive marketing have led to a substantial increase in the number of people initiating this habit and getting addicted to it.
2. A lack of proper demarcation between the various products such as gutka, pan masala, and their contents.
3. In India, areca nut is deeply rooted in the cultural/religious beliefs of the people, it is considered sacred and is distributed to people during occasions like marriages, etc., and hence its consumption is not uncommon nor is it objectionable.
4. There could be a lower reporting of the incidence of oral mucosal lesions due to minimal symptoms in the early stages and a lack of awareness regarding the same.

V. Conclusion

India offers a diverse avenue for research especially in the subject of oral mucosal lesions as a number of areca nut and tobacco products are available in the market and a large segment of the population is addicted to these products. The need of the hour is to invest wisely in research so as to precisely identify the various contributing factors affecting the disease progression and outcome, provide high quality evidence-based treatment modalities to patients and reduce their suffering, and significantly improving the quality of life. The study observes the increased risk of oral mucosal lesions with consumption of tobacco such as gutkha and paan masala. Also, the habit of smoking has been reaffirmed as a risk factor for oral leukoplakia. Interventional public health programmes discouraging the use of tobacco should be formulated.

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