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Otorhinolaryngology

A HOSPITAL BASED STUDY ON CLINICAL SCENARIO OF PREMALIGNANT LESIONS OF ORAL CAVITY

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ABSTRACT Premalignant lesions are potentially malignant oral epithelial lesions with an altered morphological state of the normal mucosal lining and include different lesions such as leukoplakia, erythroplakia, submucosal fibrosis, and lichen planus. Prompt diagnosis and management of these lesions are essential to prevent patient morbidity and mortality. There are several treatment options including conservative to surgical for eliminating the premalignant lesions of the oral cavity. The aim of this study was to discuss the etiological and risk factors, diagnostic features and current treatment of the premalignant lesions of the oral cavity.

KEYWORDS : Premalignant lesions, leukoplakia, submucosal fibrosis, surgical

INTRODUCTION

A premalignant or precancerous condition is a generalized state associated with a significantly increased risk of cancer.[1] Premalignant lesions of oral cavity including leukoplakia, oral submucosal fibrosis (OSMF), lichen planus and oral erythroplakia have a very high malignancy potential.[2] Use of tobacco, alcohol consumption, cigarette smoking, chewing betel leaf with areca nut, exposure to human papilloma virus, deficiency of micronutrients and minerals are some of the factors that contribute to the development of premalignant lesions of the oral cavity.[3] The premalignant lesions can be found in any part of the oral cavity and the anatomical landmark for oral cavity includes lips, the mucosal lining of the cheek, floor of the mouth, anterior two third of tongue, upper and lower gingival surfaces and hard palate.[4] Early diagnosis is an important step for preventing the malignant transformations of these lesions and can be also life-saving. Several treatment options include conservative to surgical for eliminating the premalignant lesions of the oral cavity.[5] In this context, the present study was undertaken to discuss the details of etiological and risk factors, clinical presentations, diagnosis and current treatment of the premalignant lesions of the oral cavity.

MATERIALS AND METHOD

- **Study Type-** Descriptive type of observational study.
- **Study Design-** Cross-sectional.
- **Study Duration-** 6 months (From 1st Dec 2023 to 31st May 2024).
- **Study Area-** Department of ENT, TMC & Dr. BRAM Teaching Hospital, Hapania, Agartala , West Tripura, PIN-799014.
- **Study Population-** Patients of all age groups with following inclusion and exclusion criteria attending IPD & OPD, Department of ENT, and give their written consent:

A) Inclusion Criteria:

Patients presenting with-

- Diffuse dense white patches in the oral cavity with or without trismus
- White patches over tongue or oral mucosa
- Red patch on mucosal surface or crusting on corners of mouth
- Reticular lesions over buccal mucosa or erosions on cheeks, gums and sides of tongue.

B) Exclusion Criteria:

Patients with-

- Aphthous ulcer or oral candidiasis
- Diagnosed oral malignancy
- Known bleeding disorders

Sample Size- Patients are randomly selected in this prospective study conducted from December 2023 to May 2024. 100 patients at an average in a single year have been found to have attended ENT OPD of Tripura Medical College. So, 50 patients diagnosed with oral premalignant lesions have been included in the study.

Data Collection Procedure- 50 Patients of all age groups attending OPD and IPD of ENT , TMC & Dr. BRAM Teaching Hospital with clinical symptoms and signs of oral premalignant lesions are included in the study. A proforma for history, examination, investigations and treatment options was used to collect data. The predisposing factors and clinical presentations are noted. All patients underwent all routine blood tests and biopsy for histopathological examination was done in suspected cases of malignancy. Treatment options included mainly conservative including topical and oral drugs and surgery if indicated. Patients followed up at monthly interval for 6 months.

RESULTS

In our study, out of 50 patients, 25 patients (50%) have history of cigarette smoking with alcohol consumption, 15 patients (30%) have history of chewing betel leaf with areca nut and 5 patients (10%) developed lesions due to chronic friction or vitamin deficiencies. Immunocompromised state, food allergies, injuries and chronic systemic diseases are predominant risk factors associated with these lesions. About 40% patients presented with burning sensation, 30% patients presented with difficulty in chewing with intolerance to spicy food, 20% patients presented with difficulty in opening mouth, 10% patients have history of trauma prior to ulceration. The results of clinical features are tabulated below:

Table 1: The symptom profile of patients in the study

SYMPTOMS	NUMBER OF PATIENTS
Burning sensation	20
Difficulty in chewing	15
Difficulty opening mouth	15
Trauma	5

The results of clinical findings as confirmed by histopathology reports are tabulated below :

Table 2: The diagnostic findings of patients in the study

Diagnosis	Number of patients	Percentage
Leukoplakia	21	42%
Submucosal fibrosis	15	30%
Lichen planus	8	16%
Cheilitis	6	12%

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Figures 1 and 2: Patients with oral submucosal fibrosis

Treatment consisted of medical treatment with local steroid application, submucosal intralesional injection of steroid with hyaluronidase repeated at weekly interval for 6 weeks in cases of

submucosal fibrosis, maintaining oral hygiene with antiseptic mouth wash, supplementation of vitamins and anti-oxidants and treatment of other predisposing factors for low-risk lesions. Patients were regularly followed up at monthly interval for 6 months for clinical improvement of signs and symptoms. On follow-up, 70% patients showed improvement and remaining 30% patients advised to do repeat biopsy and planned for excisional biopsy for moderate to severe dysplasia.

DISCUSSION

In our study, there was male predominance with about 50% patients having history of cigarette smoking with alcohol consumption, 30% patients have history of chewing betel leaf with areca nut and 10% patients developed lesions due to chronic friction or vitamin deficiencies. Santosh Kumar Swain[1] also reported in their study that chronic cigarette smoking, tobacco chewing and alcohol consumption are most commonly associated with oral premalignant lesions.

In our study, about 40% patients presented with burning sensation, 30% patients presented with difficulty in chewing with intolerance to spicy food, 20% patients presented with difficulty in opening mouth, 10% patients have history of trauma prior to ulceration. Similar findings were also reported by Souza de Chris et al.[2] in their study.

In our study, about 42% patients were diagnosed with leukoplakia, 30% patients with oral submucosal fibrosis, 16% patients diagnosed with lichen planus and 12% patients with cheilitis. Kansara Sagar et al.[6] in their study also reported leukoplakia, lichen planus and submucosal fibrosis as most common premalignant lesions.

In our study, treatment mainly consisted of medical management and regular follow-up for low-risk patients. Kansara et al.[7] also reported cessation of risk factors are reasonable option in patients with low-risk lesions and excisional biopsy is the management of choice for high risk lesions or lesions over high risk sites.

CONCLUSION

The diagnosis of the premalignant lesions of the oral cavity is based on the clinical findings and histopathological report. Prevention of the pre-disposing factors is an important step to stop progression of these lesions. Surgical excision is treatment of choice for suspicious lesions in the oral cavity. Thus, early diagnosis and prompt treatment are necessary for managing the premalignant lesions of the oral cavity.

REFERENCES

1. Santosh Kumar Swain. Premalignant lesions of the oral cavity. International Journal of Research in Medical Sciences.2021 Jun;9(6):1816-1822.
2. Chris de Souza, Uday Pawar, Pankaj Chaturvedi. Precancerous lesions of oral cavity. Otorhinolayngology Clinics: An International Journal, May- September 2009; 1(1):7-14.
3. Wu JH, Zhou Y, Luo XY. Role of narrow band imaging in the diagnosis of premalignant and malignant lesions of oral cavity. Chinese J of Otorhinolaryngol head and neck surg. 2020;55(2):104-8.
4. Warnakulasuriya S, Johnson NW, Waal I. Nomenclature and classification of potentially malignant disorders of the oral mucosa. J Oral Pathol Med. 2007;36(10):575-80.
5. Swain SK, Debta P. Nonsurgical treatment of oral cavity leukoplakia. Matrix Sci Medica. 2020;4(4):91.
6. Sagar Kansara, Sunthosh Sivam. Premalignant lesions of the oral mucosa. Statpearls Publishing. 2024.
7. Jemal A, Murray T, Ward E, Samuels A, Tiwari RC, Ghafoor A, et al. Cancer statistics, 2005. CA Cancer J Clin. 2005;55(1):10-30.
8. Kao YH, Chen CN, Chiang JK, Chen SS, Huang WW. Predicting factors in the last week of survival in elderly patients with terminal cancer: a prospective study in southern Taiwan. Journal of the Formosan Medical Association. 2009;108(3):231-9.
9. Banoczy J, Gintner Z, Dombi C. Tobacco use and oral leukoplakia. J Dent Educ. 2001;65(4):322-7. 9. Duan SM, Liu TN, Zeng X. Research progress of oral erythroplakia. Chinese J of Stomatol. 2020;55(6):421-4.
10. Gupta PC, Warnakulasuriya S. Global epidemiology of areca nut usage. Addict Biol. 2002;7(1):77-83.
11. Reichart PA, Philipsen HP. Oral erythroplakia-a review. Oral Oncol. 2005;41(6):551-61.
12. Waal I. Potentially malignant disorders of the oral and oropharyngeal mucosa; terminology, classification and present concepts of management. Oral Oncol. 2009;45(4):317-23.
13. Kruk ZA, Wierzbicka M. The tongue and floor of the mouth cancer– diagnosis and advances in treatment. Contemp Oncol. 2003;7:264-74.
14. Kumar M, Singh M, Suwasini S. Epidemiological and clinicopathological analysis of oral leukoplakia in Patna. Indian J Dent Sci 2021;13:12-7.
15. Hashibe M, Sankaranarayanan R, Thomas G, Kuruvilla B, Mathew B, Somanathan T, et al. Body mass index, tobacco chewing, alcohol drinking and the risk of oral submucous fibrosis in Kerala, India. Cancer Causes Control. 2002;13(1):55-64.
16. Hashibe M, Mathew B, Kuruvilla B, Thomas G, Sankarnaryanan R, Parkin DM. Chewing tobacco, alcohol, and the risk of erythroplakia. Cancer Epidemiol Biomarkers Prev. 2000;9(7):639-45.
17. Greer RO. Pathology of malignant and premalignant oral epithelial lesions. Otolaryngol Clin North Am. 2006;39(2):249-75.
18. Dietrich T, Reichart PA, Scheifele C. Clinical risk factors of oral leukoplakia in a representative sample of the US population. Oral Oncol. 2004;40: 158-63.
19. Gupta PC, Warnakulasuriya S. Global epidemiology of areca nut usage. Addict Biol. 2002;7(1):77-83.
20. Papke RL, Horenstein NA, Stokes C. Nicotinic Activity of Arecoline, the Psychoactive Element of "Betel Nuts", Suggests a Basis for Habitual Use and Anti-Inflammatory Activity. PLoS One. 2015;10(1