

Premalignant lesion of oral cavity in Indian study population

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Abstract

Introduction: Cancer is one of the most formidable health problems facing mankind today. Oral cancer is the third most common form of malignancy in India. The most common precancerous lesions are oral leukoplakia and oral erythroplakia. If precancerous lesions are detected and treated early then the conversion to cancer is averted. **Objective:** To study premalignant lesion of oral cavity in Indian study population. **Material and Methods:** The present study has been conducted in the Department of E.N.T., S.S. Medical College and Associated G.M. Hospital, Rewa (M.P.) A total of 410 patients attended E.N.T. OPD during the study period of one year. A detailed history was recorded and was investigated with routine blood examination, X-ray, Stool and Urine routine examination and finally biopsy, which was done-either as incisional or excisional biopsy with proper staining methods. Data analysis was done using proper statistical methods. **Results:** The incidence of premalignant lesion was 20.24%. The maximum number of patients was in the 3rd decade of life (24.44%). Males were more commonly affected than females (M: F, 2.3:1). There was nearly equal distribution of cases in the rural and urban areas. 50.60% of the patients belonged to the lower middle socioeconomic group and were farmers by occupation. The chronic nonspecific inflammation was the main lesion prevalent with 8.05% incidence. Leukoplakia and OSMF, both were found in equal number of cases 21 with 5.12% incidence. **Conclusion:** Thus, we conclude that incidence of premalignant lesion is increasing now a days with alarming rate. The age group affected was mostly productive young age group.

Keywords: premalignant lesion, oral cavity.

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INTRODUCTION

Cancer is one of the most formidable health problems facing mankind today. Oral cancer is the third most common form of malignancy in India.¹ The starting point of cancer is the mucosal epithelium which when subjected to exogenous and endogenous factors or carcinogens produce changes that are reactive and reversible. But with progressive loss of normal control mechanism these changes lead to precancerous state.²

The most common precancerous lesions are oral leukoplakia (OL) and oral erythroplakia. If precancerous lesions are detected and treated early then the conversion to cancer is averted. Despite the advances made in the therapeutic modalities via multidisciplinary approaches, survival rate for oral cancer has not significantly improved.³ This motivates the search of factors which will help in the early diagnosis and management. Early diagnosis and prompt treatment will avert mutilating surgery, improve patient's quality of life and can decrease morbidity and mortality associated with cancer. Thus to have early diagnosis of premalignant conditions the study was determined to incidence of premalignant conditions among Indian population.

OBJECTIVE

To study premalignant lesion of oral cavity in Indian study population.

MATERIAL AND METHODS

The present study has been conducted in the Department of E.N.T., S.S. Medical College and Associated G.M. Hospital, Rewa (M.P.) A total of 410 patients attended E.N.T. OPD during the study period of one year. Among 410 patients 83 patients proved to be of premalignant lesion. A detailed history including the age, sex, site and duration of lesions, socio-economic status of the patient, addictions etc. was elicited and recorded on the presented proforma. The various socio-economic groups are categorized based on the surveys conducted in 1993-94 by the national Council of Applied Economic Research, New Delhi. In all the cases details of history was recorded and was investigated with routine blood examination, X-ray, Stool and Urine routine examination and finally biopsy, which was done-either as incisional or excisional biopsy with proper staining methods. Data analysis was done using proper statistical methods.

RESULTS

Table 1: Incidence of Premalignant lesion

Type of Lesion	No. of Cases	Total cases	Incidence %
Premalignant lesion	83	410	20.24

A total of 410 patients attended E.N.T. OPD during the study period of one year. Among 410 patients 83 patients proved to be of premalignant lesion hence incidence was 20.24%.

Table 2: Distribution according to Age

Age	No. of Cases	Percentage
0-10	01	01.20
11-20	13	15.66
21-30	22	26.51
31-40	18	21.69
41-50	14	16.87
51-60	10	12.05
61-70	04	04.82
>70	01	01.20
Total	83	100

It was seen that the disease was more common in the 3rd and 4th decade of life. The maximum number of patients was in the 3rd decade of life (24.44%).

Table 3: Distribution according to Sex

Sex	No. of Cases	Percentage
Male	58	68.88
Female	25	30.12
Total	83	100

It was evident from the table 3; that incidence of lesion was 68.88% among male and 30.12% were among

female indicating that males were more commonly affected than females (M: F--2.3:1).

Table 4: Distribution according to demographic Characteristics

Characteristics		No. of Cases (n=83)	Percentage
Religion	Hindu	76	91.57
	Muslim	07	8.43
Residence	Rural	41	49.40
	Urban	42	50.60
Socioeconomic class	Low	31	37.35
	Lower middle	42	50.60
	Upper	10	12.05
	Middle	00	00.00
	High	00	00.00
Occupation	Farmer	18	21.69
	Laborers	07	08.43
	Skilled worker	04	04.82
	Service	15	18.07
	Business	06	07.23
	Retired	01	01.20
	Dependent	16	19.28
	Housewife	16	19.28

In the present study, on considering the religion of the patients, it was seen that 91.57% of patients were Hindus and 8.43% were Muslims. It is evident from the above table that there was equal distribution of cases in the rural and urban areas (50% each) In the study, 50.60% of the patients belonged to the lower middle socioeconomic group. It was evident that the maximum 18 cases (21.69%) were farmers by occupation.

Table 5: Distribution according to Type of Lesion

Type of Lesion	No. of Cases	Incidence %
Leukoplakia	21	5.12
OSMF	21	5.12
Melanotic Macule	01	0.24
Chronic Non Specific Inflammation	33	8.05
Papilloma	05	1.21
Miscellaneous Condition (Actionmycosis, capillary Haemangioma)	02	0.49

The table no 5 indicates that chronic nonspecific inflammation was the main lesion prevalent with 8.05% incidence. Leukoplakia and OSMF, both were found in equal number of cases 21 with 5.12% incidence.

DISCUSSION

The present study has been conducted in the Department of E.N.T., S.S. Medical College and Associated G.M. Hospital, Rewa (MP) to study premalignant lesion of oral cavity in Indian study

population. A total of 410 patients attending E.N.T. OPD during the study period of one year were included in the study. In the present study, among 410 patients 83 patients proved to be of premalignant lesion hence incidence was 20.24%. (Table 1) Similar findings were seen in study done by Bhonsle⁴ *et al* where incidence was 18% while in study by Crivelli⁵ *et al* incidence was 20.51%. The age incidence of premalignant lesion of oral cavity ranges from 8 years to 73 years. It was seen that the disease was more common in the 3rd and 4th decade of life. The maximum number of patients was in the 3rd decade of life (24.44%). There is a gradual decline in the number of cases with advancing age. The oldest patient in the study group is 73 years old. (Table 2) The findings were in deviation to the study done by Pindborg⁶ *et al* who found it maximum in 40-49 years age group and Wahi⁷ *et al* in 30-49 years. It was evident from the table 3; that out of 83 cases studied 68.88% were male and 30.12% were female indicating that males were more commonly affected than females (M:F, 2.3:1). Male predominance may be because of their more expose way of life, more outdoor activity and local habits. It may also be due to the fact that women come to hospital less frequently or treatment than men. (Table 3) In the present study, on considering the religion of the patients, it was seen that 91.57% of patients were Hindus and 8.43% were Muslims. The reason may be due to Hindu predominant area. It was evident from the table 4 that there was nearly equal distribution of cases in the rural and urban areas. The various socio-economic groups were categorized based on the surveys conducted in 1993-94 by the national Council of Applied Economic Research, New Delhi. In the present study 31 cases belong to the low socioeconomic group, 42 cases belong to lower middle socioeconomic group, 10 cases upper-middle socioeconomic group and none belong to high income group. Thus, highest 50.60% of the patients in the present study belonged to the lower middle socioeconomic group. It was evident from the above table that the maximum 18 cases (21.69%) were farmers

by occupation. The present study indicates that chronic nonspecific inflammation was the main lesion prevalent with 8.05% incidence. Leukoplakia and OSMF, both were found in equal number of cases 21 with 5.12% incidence. (Table 5) The results found in relation to incidence of OSMF (23%) by Murti⁸ *et al* were much lower in this study.

CONCLUSION

Hence, we conclude that incidence of premalignant lesion is increasing now a days with alarming rate. The age group affected was mostly productive young age group.

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