

**ORIGINAL ARTICLE****Retrospective Assessment of Frequency of Occurrence of Different Potentially Malignant Disorders of the Oral Cavity: An Observation Study**Rubeena Anjum<sup>1</sup>, Mohammad Shafi Dar<sup>2</sup>, Shally Gupta<sup>3</sup>, Mandeep Kaur<sup>4</sup>

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**ABSTRACT:**

**Background:** Oral potentially malignant disorder and its sequelae may cause heavy impairment in quality of life; the disease is also highly costly for society. Despite the fact that the oral cavity is accessible for visual examination, and oral cancers, and premalignant lesions have well-defined clinical diagnostic features, oral cancers are typically detected in their advanced stages. Hence; we planned the present study to assess the frequency of occurrence of potentially malignant disorders of the oral cavity. **Materials & methods:** The present study included evaluation of prevalence of potentially malignant disorders of the oral cavity. Data records of a total of 200 patients with mean age of 30.2 years was retrieved from the archives from the department. Biopsy reports of consecutive 200 patients were analyzed and were screened for assessing the number and type of premalignant disorder present. **Results:** Oral lichen planus was the most commonly observed potentially malignant disorder observed in the present study, found to be present in 2.5 percent of the patient population. Oral submucous fibrosis was found to be seen in 1 percent of the patient population. Oral leukoplakia was present in 0.5 percent of the patient population. **Conclusion:** Potentially malignant disorders affect significant patient population.

**Key words:** Leukoplakia, Oral submucous fibrosis, potentially malignant.

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**INTRODUCTION**

Oral potentially malignant disorder and its sequelae may cause heavy impairment in quality of life; the disease is also highly costly for society. Primary prevention is the most cost effective prevention program as it aims to reduce the incidence of potentially malignant disorders, by risk factor modification.<sup>1-3</sup> Most of the general public is poorly informed about the risk of oral potentially malignant disorder and ways to prevent this disease. Early detection is of critical importance, and survival rates markedly improve when identified at early stage. Investigating the prevalence of oral mucosal lesions will prevent malignant transformation.<sup>4,5</sup>

Despite the fact that the oral cavity is accessible for visual examination, and oral cancers, and premalignant lesions have well-defined clinical diagnostic features, oral cancers are typically detected in their advanced stages. Oral cancer is a potentially preventable disease, but the lack of awareness coupled with a delay in diagnosis generally results in the presentation of these lesions in their advanced stages. In India, 60–80% of patients present with advanced stages of the disease as compared to 40% in developed countries.<sup>6-8</sup>

Hence; we planned the present study to assess the frequency of occurrence of potentially malignant disorders of the oral cavity.

**MATERIALS & METHODS**

The present study was planned in the department of oral pathology of the govt. dental college, Jammu and it included evaluation of prevalence of potentially malignant disorders of the oral cavity. Data records of a total of 200 patients with mean age of 30.2 years was retrieved from the archives from the department. Biopsy reports of consecutive 200 patients were analyzed and were screened for assessing the number and type of premalignant disorder present. All the data were summarized in Microsoft excel sheet and were analyzed by SPSS software. Multivariate regression curve was used for assessing the level of significance.

**RESULTS**

Data records of a total of 200 patients were analyzed in the present study. Mean age of patients of the present study was 30.2 years. There were 130 males and 70 females in the present study. Oral lichen planus was the most commonly observed potentially malignant disorder observed in the present study, found to be present in 2.5 percent of the patient population. Oral submucous fibrosis was found to be seen in 1 percent of the patient population. Oral leukoplakia was present in 0.5 percent of the patient population.

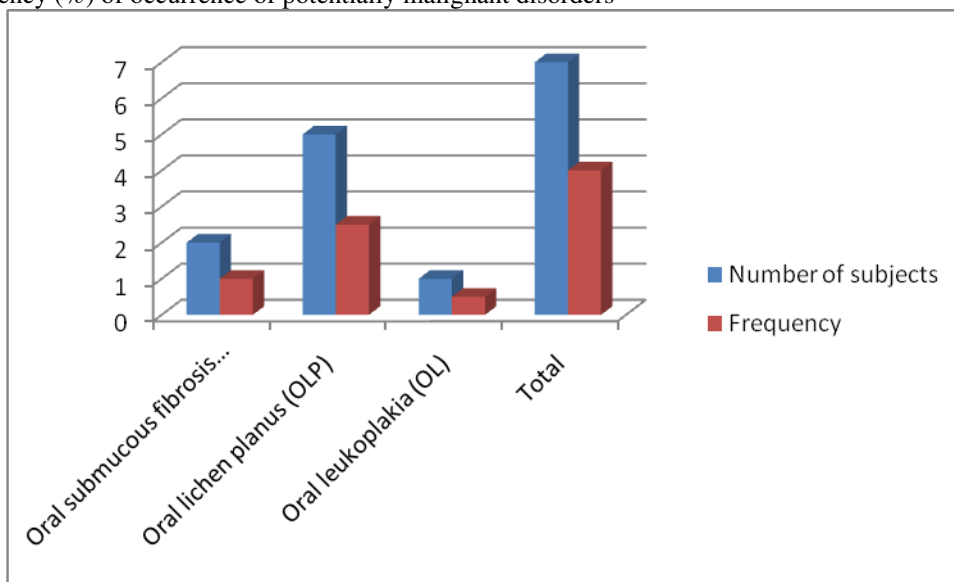
**Table 1:** Demographic data

Parameter	Value
Mean age (years)	30.2
Males	130
Females	70
Total	200

**Table 2:** Frequency of occurrence of potentially malignant disorders

Potentially malignant disorder	Number of subjects	Frequency
Oral submucous fibrosis (OSMF)	2	1
Oral lichen planus (OLP)	5	2.5
Oral leukoplakia (OL)	1	.5
Total	7	4

**Graph 1:** Frequency (%) of occurrence of potentially malignant disorders



**DISCUSSION**

In the present study, data records of a total of 200 patients were analyzed in the present study. Mean age of patients of the present study was 30.2 years. There were 130 males and 70 females in the present study. Kumar YS et al assessed the prevalence and risk factors of oral potentially malignant disorders (PMD) among industrial workers of Udupitaluk, Karnataka. The sample consisted of industrial workers aged >18 years from randomly selected industries in Udupi Taluk. A self-administered questionnaire was given to the participants to assess sociodemographic factors and abusive habits (Tobacco, Alcohol, and Betel quid) followed by clinical oral examination by single trained and calibrated examiner. A total of 396 completed all steps of the survey and were included for analysis. A total of 14, 11.4, and 14.4% were tobacco, alcohol, and betel quid users, respectively. A total of 8.6% (n = 34) have at least one PMD. A significantly higher number of participants with single (11.4%) or combined habits (60.4%) had oral lesions while none of the participants without habits reported any oral lesions (P = 0.001). Prevalence of abusive habits and

oral premalignant lesions or conditions was substantial among the workers.<sup>9</sup>

In the present study, Oral lichen planus was the most commonly observed potentially malignant disorder observed in the present study, found to be present in 2.5 percent of the patient population. Oral submucous fibrosis was found to be seen in 1 percent of the patient population. Oral leukoplakia was present in 0.5 percent of the patient population. Kumar S et al assessed the prevalence of oral potentially malignant disorders and to determine the potential risk factors for its development in Indian population. A questionnaire was designed to record information about sociodemographic characteristics, oral hygiene practices, dietary habits, and risk factors for oral potentially malignant disorders. Oral mucosal lesions were examined by a skilled person. The overall prevalence of oral potentially malignant disorders was found to be 13.7% with oral submucous fibrosis (8.06%) found to be more common and erythroplakia (0.24%) found to be least prevalent. Results of Logistic Regression analysis showed that males who were ever consumers of tobacco and areca nut chewing

were more likely to develop oral potentially malignant disorders compared to never consumers. Diabetic and underweight individuals were more likely to suffer from oral potentially malignant disorders. The study reinforced the association of tobacco and areca nut consumption with oral potentially malignant disorders.<sup>10</sup> Kadashetti V et al assessed the prevalence and various risk factors among potentially malignant disorders (PMD) and oral cancer patients of central India. A total of 100 clinically and histopathologically diagnosed PMD and oral cancer patients were selected for the study. A histopathologically confirmed 100 patients who were suffering from PMD and oral cancers were selected and an equal number 100 healthy controls who were age- and sex-matched at par with the cases were also examined and interviewed. Chi-square ( $\chi^2$ ) test and adjusted odds ratio (ORs) with 95% confidence interval (CI) were calculated to estimate the suspected risk factors for PMD and oral cancers by using multivariate logistic regression analysis. Significance level was set at  $P < 0.05$ . Statistically significant difference was observed in the age group, socioeconomic status (SES), duration, frequency, exposure time and synergistic effect of tobacco/betel quid chewing, smoking, and alcohol drinking in our study population. Chewing tobacco/betel quid is a strong risk factor in the development of PMD and oral cancer. Also age, gender, SES, education, and occupation influence the development of PMD and oral cancer.<sup>11</sup>

Patil PB et al examined a total of 2400 subjects (1200 subjects with and 1200 subjects without habits) attending the dental hospital. Oral mucosal lesions were found in 322 (26.8%) subjects who had tobacco smoking and chewing habits as compared to 34 (2.8%) subjects without those habits. Oral leukoplakia (8.2%) and oral submucous fibrosis (OSF) (7.1%) were the prevalent oral mucosal lesions found in subjects who had those habits, while the other lesions (1.7%) namely; oral candidiasis, median rhomboid glossitis, recurrent aphthous ulcer, frictional keratosis, and oral lichen planus (0.9%) were frequently reported among individuals without those habits. The odds of developing oral lesions in subjects with tobacco habits was nearly 11.92 times that of abstainers. The study showed that the risk of the development of oral lesions associated with tobacco smoking, chewing, or both is quite high.<sup>12</sup>

Potentially malignant disorders affect significant patient population. Hence; adequate screening methods should be employed for early detection and screening of these lesions so that treatment protocol could be started at the earliest.

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## CONCLUSION