

Original Research

Assessment of incidence of oral lichen planus in a known population

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ABSTRACT:

Background: The present study was undertaken for assessing the incidence of oral lichen planus in a known population. **Materials & Methods:** A total of 1000 patients who reported with oral and maxillofacial pathologies were included in the present study. Oral examination was carried out in all the patients using mouth mirror and probe. Biopsy samples were obtained from suspected samples and diagnosis of oral lichen planus was confirmed on histopathologic examination. Incidence of oral lichen planus was recorded. **Results:** Overall incidence of Oral lichen planus was 2.6 percent. Out of these 26 patients, 42.31 percent of the patients had reticular type of oral lichen planus while 30.77 percent and 19.33 percent of the patients had erosive and atrophic type of oral lichen planus respectively. **Conclusion:** Oral lichen planus is predominant among female adults of fourth to fifth decade of life with reticular and erosive type being the most common form.

Key words: Oral Lichen planus, Incidence

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INTRODUCTION

The mouth is a mirror of health or disease, a sentinel or early warning system. The oral cavity might well be thought as a window to the body because oral manifestations accompany many systemic diseases. In many instances, oral involvement precedes the appearance of other symptoms or lesions at other locations. Most of the oral mucosa is derived embryologically from an invagination of the ectoderm and perhaps not surprisingly, this, like other similar orifices, may become involved in disorders that are primarily associated with the skin.¹⁻³

Lichen planus (LP) is a chronic mucocutaneous disorder of the stratified squamous epithelium that affects oral and genital mucous membranes, skin, nails, and scalp. Oral lichen planus (OLP) is the mucosal counterpart of cutaneous LP. It is derived from the Greek word "leichen" means tree moss and Latin word "planus" means flat.^{4,5} In the oral cavity,

the disease assumes somewhat different clinical appearance than on the skin, and is characterized by lesions consisting of radiating white, gray, velvety, thread-like papules in a linear, annular and retiform arrangement forming typical lacy, reticular patches, rings and streaks. A tiny white elevated dot is present at the intersection of white lines known here as striae of Wickham as compared to Wickham striae in skin. The lesions are asymptomatic, bilaterally/symmetrically anywhere in the oral cavity, but most common on buccal mucosa, tongue, lips, gingiva, floor of mouth, palate and may appear weeks or months before the appearance of cutaneous lesions.⁵⁻⁷ Hence; the present study was undertaken for assessing the incidence of oral lichen planus in a known population.

MATERIALS & METHODS

The present study was undertaken for assessing the incidence of oral lichen planus in a known population. A total of 1000 patients who reported with oral and maxillofacial pathologies were included in the present study. Oral examination was carried out in all the patients using mouth mirror and probe. Biopsy samples were obtained from suspected samples and diagnosis of oral lichen planus was confirmed on histopathologic examination. Incidence of oral lichen planus was recorded. All the results were recorded in Microsoft excel sheet and were analyzed by SPSS software.

RESULTS

In the present study, a total of 1000 subjects were analyzed. Oral Lichen planus was found to be present in 26 patients. Hence; overall incidence of Oral lichen planus was 2.6 percent. Out of these 26 patients, 42.31 percent of the patients had reticular type of oral lichen planus while 30.77 percent and 19.33 percent of the patients had erosive and atrophic type of oral lichen planus respectively. Mean age of the patients with oral lichen planus was 45.6 years. Out of these 26 patients, 10 were males and 16 were females.

Graph 1: Incidence of oral lichen planus

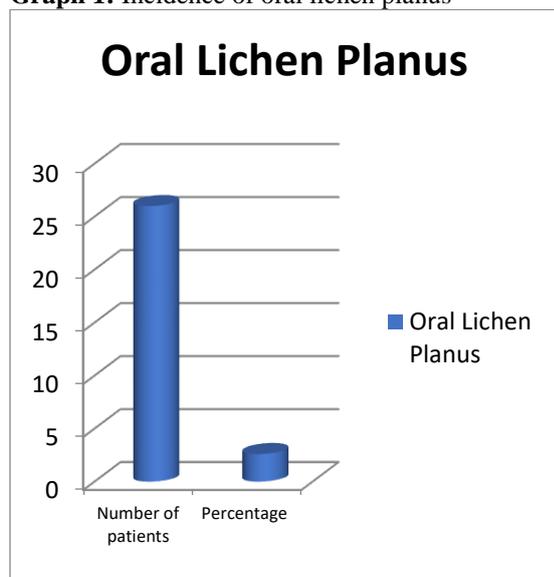


Table 2: Types of oral lichen planus

Types of oral lichen planus	Number of patients	Percentage
Reticular	11	42.31
Erosive	8	30.77
Atrophic	5	19.23
Plaque-like	2	7.69
Total	26	100

DISCUSSION

Lichen planus (LP) is an inflammatory disorder of the skin and mucous membranes with no known cause. It appears as pruritic, violaceous papules and plaques

most commonly found on the wrists, lower back, and ankles. A lattice-like network of white lines called Wickham striae overlies the lesions but is most easily observed on the buccal mucosa where erosions can also be present. Drug-induced lichen planus, or lichenoid drug eruption, is frequently photo distributed but may be indistinguishable from idiopathic LP.⁵⁻⁷

In the majority of patients with oral lichen planus (OLP) there is no associated cutaneous lichen planus or lichen planus at other mucosal sites. This may be called "isolated" OLP. This disease has most often been reported in middle-aged patients 30-60 years of age and is more common in females than in males.² OLP is also seen in children, although it is rare. The disease affects 0.5-2% of the population. The clinical history confirms the relationship between OLP and oral cancer, although the degree of the risk involved is controversial. Therefore, OLP should be considered a precancerous lesion, emphasizing the importance of periodic follow-ups in all the patients.⁸⁻¹² Hence; the present study was undertaken for assessing the incidence of oral lichen planus in a known population. In the present study, a total of 1000 subjects were analyzed. Oral Lichen planus was found to be present in 26 patients. Hence; overall incidence of Oral lichen planus was 2.6 percent. Out of these 26 patients, 42.31 percent of the patients had reticular type of oral lichen planus. Munde AD et al investigated the epidemiological and clinical characteristics of 128 OLP patients in rural population of India. In 128 patients, M:F ratio was 1.61:1. The buccal mucosa was the most common site (88.20%). White lichen was seen in 83.59% and red lichen in 16.40% cases. Reticular type of OLP was the most common form (83.5%) followed by erosive (15.6%) and atrophic OLP (0.78%). The incidence of systemic diseases included hypertension (11%), diabetes mellitus (2.4%), and hypothyroidism (0.78%). Histopathologically epithelial dysplasia was present in 4 cases.¹³

In the present study, 30.77 percent and 19.33 percent of the patients had erosive and atrophic type of oral lichen planus respectively. Mean age of the patients with oral lichen planus was 45.6 years. Out of these 26 patients, 10 were males and 16 were females. R B Bhonsle et al assessed incidence rate of oral lichen planus among Indian villagers. In a house-to-house survey in South India, comprising 10,000 villagers, the age-adjusted incidence rate per 1,000 person-years for oral lichen planus was found to be 2.1 for males and 2.5 for females, based upon a 10-year follow-up study. The highest incidence was in the age group 55-64 for males and 45-54 for females. The age-adjusted relative risk was higher for the 'chewing habits' group (6.2) than for the 'smoking habit' group (2.2). The combined effect of the two habits appeared to be multiplicative; the age-adjusted relative risk for the mixed habit group being 13.7.¹⁴ Omal P et al evaluate

the prevalence of oral, skin, and oral and skin lesions of LP. LP was diagnosed on the basis of clinical presentation and histopathological analysis of mucosal and skin biopsy done for all patients suspected of having LP. Out of 18,306 patients screened, 8,040 were males and 10,266 females. LP was seen in 118 cases (0.64%). Increased prevalence of LP was observed in middle age adults (40–60 years age group) with lowest age of 12 years and highest age of 65 years. No statistically significant differences were observed between the genders in skin LP group ($P=0.12$) and in oral and skin LP groups ($P=0.06$); however, a strong female predilection was seen in oral LP group ($P=0.000036$). The prevalence of cutaneous LP in oral LP patients was 0.06%. Their study showed an increased prevalence of oral LP than skin LP, and oral and skin LP with a female predominance.¹⁵

CONCLUSION

Oral lichen planus is predominant among female adults of fourth to fifth decade of life with reticular and erosive type being the most common form.

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