

PREVALENCE OF ORAL LICHEN PLANUS IN A SOUTH KERALA POPULATION: A RETROSPECTIVE STUDY

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ABSTRACT:

Introduction: Oral lichen planus (OLP) is a common inflammatory immune mediated disorder affecting the oral mucosa. Clinical profile of OLP varies. Epidemiology of OLP has been described from various countries, but rare from South Kerala Population. Objective: 1. To determine the prevalence of oral lichen planus in a South Kerala Population. 2. To assess the age, gender, site and type of OLP in a south Kerala population.

Subjects and Methods: A total of 15,771 patients who visited the Department of Oral Medicine and Radiology, Pushpagiri College of Dental Sciences, Kerala, South India over a period of 12 months were included in the study and their data was retrospectively reviewed. Fifty-three patients with OLP were selected and their type, location, age and gender of the patient were studied.

Results: Among the 15,771 patients examined only 53 (0.37%) had oral lichen planus of which 39 (73%) were females and 14 (27%) males. OLP was mostly 38 (71.7%) seen in the age group of 41-60 years, followed by 9 (17.0%) of the age group 61-80, and 6 (11.3%) among 20-40 age group of both genders. Multiple oral sites were affected in 5 (9.4%) of the patients. The most common site was buccal mucosa 49 (92.5%) followed by 4 (7.5%) on the gingiva and no lesions were found on the tongue. The most common clinical presentation was reticular type of oral lichen planus 47 (88.7%), followed by 6 (11.3%) erosive type.

Conclusion: A prevalence of 0.37% of oral lichen planus was found among a South Kerala population and their age, gender, clinical characteristics and the location of OLP was studied.

Key Words: Lichen planus, Oral, Prevalence, Buccal mucosa, Immune mediated.

INTRODUCTION:

Lichen planus is a common immune mediated mucocutaneous disorder. The age of onset OLP is usually between the 3rd and 6th decade of life. The prevalence of oral lichen planus is 1-2% in general population while it is 2.6% Indian population.^[1,2] It has got a female predilection.^[3] The exact etiology is not clear, but immunological system plays an important role. The most commonly affected site is buccal mucosa with bilateral presentation. There are 6 clinical variants as classified by Anderson.^[4]



Reticular form is the most common type. The typical site of the striae is on the buccal mucosa and is usually asymptomatic. Erosive and atrophic types causes burning sensation.^[5]

Most important complication is the malignant transformation potential and development of oral squamous cell carcinoma.^[6] Erosive and atrophic forms have high chances of malignant transformation. The aim of the present study was to determine the prevalence, age, site and sex predilection of the oral lichen planus in South Kerala Population.

MATERIALS AND METHODS:

This retrospective study was conducted among 15,771 patients, aged 20-80 years, who visited the Department of Oral Medicine and Radiology, Pushpagiri College of Dental Sciences, Kerala, South India, over a period of 12 months. The records of the patients with oral lichen planus were retrospectively reviewed. The diagnostic criteria proposed by Van der val classification was used to identify the cases of OLP. The clinical criteria included the presence of bilateral and symmetrical lesions with the presence of lace like network of slightly elevated white lesions (reticular). For erosive type, along with striae there is an erosive area present. In plaque type lichen planus, presence of non scrappable white patch with striations will be present. In bullous type, a history of bullae formation with associated striations similar to that of reticular lichen planus will be seen. Based on this criteria, 53 patients with OLP were selected for data review. The type of the lesion (reticular, erosive, plaque and bullous), location, clinical manifestation, age and gender of the patient were assessed. In patients with more than one clinical forms of lesions, the most severe form was used to classify the lesions.

RESULTS:

Among the 15,771 patients examined only 53(0.37%) had oral lichen planus. The mean age was 51.1 ± 10.1 . OLP was present in 39(73%) females and

14(27%) males. It was mostly seen in the age group of 41-60 years 38(71.7%), followed by 61-80 age group with 9(17.0%), and 6(11.3%) among the 20-40 year-old age group of both genders. Multiple oral sites were affected in only 5(5.6%) patients. The most common site was buccal mucosa bilaterally with 49 (92.4%), 4(7.6%) on the gingival. Both the lesions were more common in females. No lesions were found on the tongue, lip and palate. The distribution of OLP in relation to gender and age group are given in Table 1.

The most common clinical presentation was reticular type 47(88.7 %), followed by erosive type 6(11.3%). No bullous lesions were found in our study. The clinical characteristics of OLP in relation to gender and age group are listed in Table 2 and 3. Reticular and erosive type of OLP was common in females as compared to males.

DISCUSSION:

Our study aimed to evaluate the prevalence, age, gender, clinical characteristics and location of OLP patients among patients visiting a dental college in South Kerala. Data reveals that the prevalence of OLP in our study group is 0.37%, which was found to be less as compared to the Swedish and Japanese population 1.9% and 2.3% respectively. [7,8] In our population, OLP was more frequently observed among females (73%) as compared to males (27%). Though most studies show a female

predominance,^[7,9] one study done by Munde et.al. in Maharashtra, India show a male predominance.^[10] The most affected age group was 41-60 years, which was similar to other studies done by Anvar et.al among Egyptians and Pakfetrat et. al., among Iranians. The most common site was buccal mucosa (90.56%), which was similar to the studies done by Ingafou M, et.al and others. ^[3,9,10] In our study, there were no lesions on the tongue. This finding is consistent with other studies where OLP lesions of the tongue are rare. ^[3,9,11-13]

The most common clinical presentation was reticular type of oral lichen planus 88.67%, which is in accordance with other previous studies.^[14,15] Post inflammatory pigmentation is seen more in the reticular pattern. It is diffuse black patches, which was observed in other studies.^[11,12] It was observed in our study that there was no skin involvement or family history of oral lichen planus compared to other studies, which reports skin lesion and familial predilection. ^[14,16]

CONCLUSION:

The present study sheds light on the prevalence and clinical characteristics of OLP which is similar to other previous studies. Oral lichen planus is a chronic disease with symptomatic flare ups and malignant transformation. Regular follow up is necessary. Long term behavior of OLP suggests that patients have spontaneous remissions and exacerbations.^[17,18] Dermatological

lesions can precede, or develop after oral lesions. Hence, it is important as oral medicine specialists to do careful examination of the patient's skin lesions and refer to appropriate specialist.

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TABLES:

Table 1: Distribution of oral lichen planus according to age group and gender (%).

Age group (years)	Female n(%)	Male n(%)	Total n(%)
20-40	11.3	0	11.3
41-60	49.0	22.6	71.7
62-80	13.2	3.7	17.0
Total	73.5	26.3	100

Table 2: Distribution of clinical type of OLP lesions according to age group and gender (in %)

Clinical type	Gender		Age group (in years)		
	Female	Male	20-40	41-60	61-80
Erosive	9.4	1.9	0	5.7	5.7
Reticular	64.2	24.5	11.3	66.0	11.3
Bullous	0	0	0	0	0

Table 3: Distribution of location of OLP lesions according gender and age group (in %).

Location	Gender		Age group (in years)		
	Female	Male	20-40	41-60	61-80
Buccal	68.0	24.5	11.3	66.0	15.1
Gingiva	5.7	1.8	1.9	5.7	1.9
Tongue	0	0	0	0	0