



ISSN Print: 2394-7489
ISSN Online: 2394-7497
IJADS 2018; 4(1): 136-137
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www.oraljournal.com
Received: 01-11-2017
Accepted: 03-12-2017

Jasmin Singh

M. D. S, Consultant Dentist,
Department of health & medical
education, Govt. of Jammu and
Kashmir, India

Sanjeet Singh

M. D. S, Consultant Dentist,
Department of health & medical
education, Govt. of Jammu and
Kashmir, India

Evaluation of prevalence of oral lichen planus in a known population: A cross-sectional study

Jasmin Singh and Sanjeet Singh

Abstract

Background: Oral lichen planus (OLP), the mucosal counterpart of cutaneous lichen planus, presents frequently in the fourth decade of life. Vesicle and bulla are seen in the oral lesions of lichen planus. Hence; we conducted the present study to assess the prevalence of OLP in a known population of Samba region, Jammu.

Materials & Methods: The present study included evaluation of prevalence rate of OLP. A total of 200 subjects were included in the present study. Detailed demographic details and clinical details of all the patients were recorded. Mouth mirror and probe were used for making the clinical examination of the patients. All the results were recorded on excel sheet. Data were analyzed by SPSS software.

Results: Out of total 200 subjects, 120 were males and remaining were females. OLP was found to be present in 2 males and 1 female. Prevalence rate of OLP was found to be 1.5 percent.

Conclusion: OLP occurs in a significant proportion of population.

Keywords: oral lichen planus, prevalence

Introduction

Oral lichen planus (OLP), the mucosal counterpart of cutaneous lichen planus, presents frequently in the fourth decade of life and affects women more than men in a ratio of 1.4:1. The disease affects 1-2% of the population. It is seen clinically as reticular, papular, plaque-like, erosive, atrophic or bullous types^[1-3]. Intraorally, the buccal mucosa, tongue and the gingiva are commonly involved although other sites may be rarely affected. Oral mucosal lesions present alone or with concomitant skin lesions. The skin lesions present as violaceous flat-topped papules in ankles, wrist, and genitalia, but characteristically the facial skin is spared^[4-6].

Vesicle and bulla are seen in the oral lesions of lichen planus. The disease manifests in the oral cavity several weeks before the skin lesions. About 15% of oral lichen planus patients have concurrent skin lesions. The reticular form has a better prognosis as 40% of cases has spontaneous remission, the erosive type being long standing and with frequent exacerbations and severe pain and complications^[7].

Hence; we conducted the present study to assess the prevalence of OLP in a known population of Samba region, Jammu.

Materials & Methods

The present study was conducted in Samba region of Jammu and included evaluation of prevalence rate of OLP. A total of 200 subjects were included in the present study. Exclusion criteria for the present study included:

- Patients with history of any systemic illness,
- Patients with any known drug allergy,
- Patients with history of any metabolic disorder,
- Patients with history of any immune-related disorder

Detailed demographic details and clinical details of all the patients were recorded. Mouth mirror and probe were used for making the clinical examination of the patients. All the results were recorded on excel sheet. Data were analyzed by SPSS software. Univariate regression curve were used for assessment of level of significance. P-Value of less than 0.05 was taken as significant. Prevalence of the OLP among known population was expressed in percentage.

Correspondence

Jasmin Singh

M. D. S, Consultant Dentist,
Department of health & medical
education, Govt. of Jammu and
Kashmir, India

Results

Out of total 200 subjects, 120 were males and remaining were females. Mean age of the subjects of the present study was 38.5 years. OLP was found to be present in 2 males and 1 female. Prevalence rate of OLP was found to be 1.5 percent.

Discussion

In the present study, we observed that prevalence rate of OLP was 1.5 percent. Varghese SS *et al.* determined the epidemiology of OLP in a cohort of South Indian population. All the case data records of 29,606 patients who visited Mar Baselios Dental College and Hospital, Kerala, India from 2014 to 2015 were retrospectively reviewed. For data review, 122 patients of OLP were selected. Estimated were type, number, and location of lesions, clinical manifestation, age of the patient, gender, onset and duration of lesion, stressful life style, habits, skin involvement and associated systemic illness, and presence/absence of dysplasia. When the distribution of OLP among the gender was considered, we found more prevalence in females than males. Fifty-seven percent of patients were associated with stressful lifestyle. Reticular lichen planus was the most common clinical subtype found. Bilateral buccal mucosal was the common site, when the distribution of sites of OLP were compared ($P<0.05$). Hypersensitivity reaction was frequently associated with systemic illness with OLP ($P<0.05$). Anaplasia was found among 5% of lichen planus lesions. OLP patients had high incidence of hypersensitivity reactions and 5% of OLP lesions showed anaplasia [8]. Omal P *et al.* evaluated the prevalence of oral, skin, and oral and skin lesions of LP from a population of patients attending the Department of Oral Medicine and Radiodiagnosis, Pushpagiri College of Dental Sciences, Tiruvalla, Kerala, India. A cross-sectional study was designed to evaluate the prevalence of oral, skin, and oral and skin lesions of LP. This is an ongoing prospective study with results of 2 years being reported. 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. Statistical analysis was carried out using SPSS (Statistical package for social sciences) software version 14. To test the statistical significance, chi-square test was used. 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%. This study showed an increased prevalence of oral LP than skin LP, and oral and skin LP with a female predominance [10].

Mostafa B *et al.* reported the prevalence of oral lichen planus among a sample of the Egyptian population. 4470 Egyptian patients, aged 15-75 years, were seen at the outpatient clinic at the Faculty of Oral and Dental Medicine, Cairo University, Egypt. 31.25% of these patients were males and 68.75% were females. Oral mucosal lesions consistent with oral lichen planus (OLP) were identified both clinically and confirmed histologically (in atypical cases) so that the prevalence of oral lichen planus in this study is 1.43%. 64 patients were diagnosed with OLP (20 males and 44 females). The average age of the affected group was 48.07 years. Associated skin lesions were detected in 15/64 patients (23.44%) and tobacco

habits was observed in 20/64 patients (31.25%). The average period of follow-up of the affected cases was 1-2 years, during which two cases developed squamous cell carcinoma of the oral lesion. Within the limitations of this study it revealed the prevalence of OLP among middle-aged women. Atrophic lesions were most frequent, followed by the erosive forms. Anti-HCV circulating antibodies were more common in patients with OLP and, notably, OLP was associated with Diabetes mellitus in 15.63% of patients [11].

Table 1. Demographic details of the patients

Parameter	Value
Mean age (years)	38.5
Males	120
Females	80

Table 2: Prevalence rate of OLP

Prevalence rate	Value
Males	1.67
Females	1.25
Total	1.5

Conclusion

From the above results, the authors concluded that OLP occurs in a significant proportion of population.

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