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Original Research Article

A study on incidence of oral lesions in lichen planus

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ABSTRACT

Background: This study was done to evaluate the incidence of oral lesions in different types of lichen planus.
Methods: A total of 30 patients clinically diagnosed with any form of lichen planus were subjected to a clinical examination and evaluated for the presence of oral lesions.
Results: Of the 30 patients in this study with predominantly females, oral involvement was seen in 17 patients with a slight male preponderance. Lichen planus was seen commonly between the ages of 20 and 40 with the incidence of oral lesions following the same trend.
Conclusions: This study has statistically proven the significance of oral involvement in cutaneous lichen planus and was done to highlight the importance of the same. Oral lichen planus can be a forerunner of genital involvement as well as malignancies and it is important to keep this in mind while examining a case of lichen planus.

Keywords: Lichen planus, Oral lesions, Classical lichen planus

INTRODUCTION

Lichen planus is a chronic muco-cutaneous inflammatory disorder. There are different types of cutaneous lichen planus namely-classical type, hypertrophic, oral lichen planus, genital lichen planus, linear, annular, lichen planus pemphigoides and lichen planus pigmentosus to name a few. Oral lichen planus is mainly of six forms-reticular, erosive, papular, atrophic, plaque and bullous. Oral lichen planus presents as a white lacy pattern most commonly buccal mucosa. Less commonly it can be seen around molars, gums and tongue.

When it involves the oral and genital areas, regular follow-up is necessary as it can turn into malignancy. These lesions can cause burning and discomfort to the patient. It is estimated that 50% of women with oral lesion tend to develop vulval lesions which is termed as vulvo-vaginal-gingival syndrome.[1,2] Few cases present only with oral lichen planus without any cutaneous involvement which is termed as "isolated oral lichen planus". Although oral lichen planus is seen in children its incidence is very rare. The most common carcinoma arising from oral lichen planus is squamous cell carcinoma.[3] Hence it is necessary to look for oral involvement in any form of lichen planus and if oral lesions are present then regular follow-up is required to look for any malignant changes.

METHODS

Study design

An observational cross-sectional study.

Study area

The study was conducted at Skin Outpatient Department at Sree Balaji Medical College and Hospital.

Study population

All patients attending skin OPD, clinically diagnosed with all forms of lichen planus.

Sample size

The sample size was 30 (random sampling).

Study period

The study was conducted from January 2019 to March 2019.

Exclusion criteria

Not consenting for the study.

Inclusion criteria

Recruited patients consenting to the study were subjected to full history taking and thorough general dermatological examination.

Study procedure

The study was approved by the ethical and research committee. Each patient was given a written informed consent and the study was explained in detail. Once the patient consented, he or she was subjected to a thorough clinical examination and evaluated for oral lesions. The results obtained were tabulated in Microsoft Excel and analyzed using SPSS software.

RESULTS

Of the 30 patients in this study ranging between the ages of 5 and 76, females were predominant with 53% (16 patients) and males with 47% (14 patients) (Figure 1).

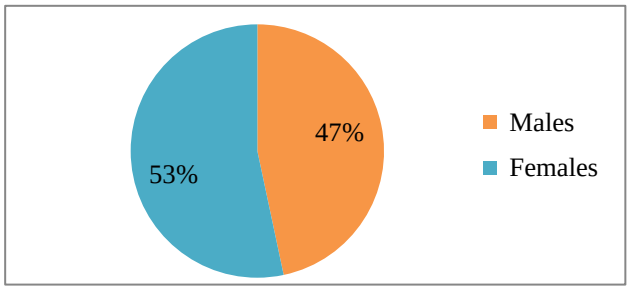

Figure 1: Gender distribution.

A total of 17 patients showed evidence of oral mucosal involvement, of which 9 were males and 8 were females. (Figure 2).

Figure 3 explains the relationship between the age and the incidence of oral lesions. Lichen planus is commonly seen in patients between the ages of 21 and 40 with 13 patients, followed by 7 patients more than 61 years, 6 patients between 41-60 years and finally 4 patients less than 20 years of age. The occurrence of oral lesions also followed the same trend as cutaneous lichen planus.

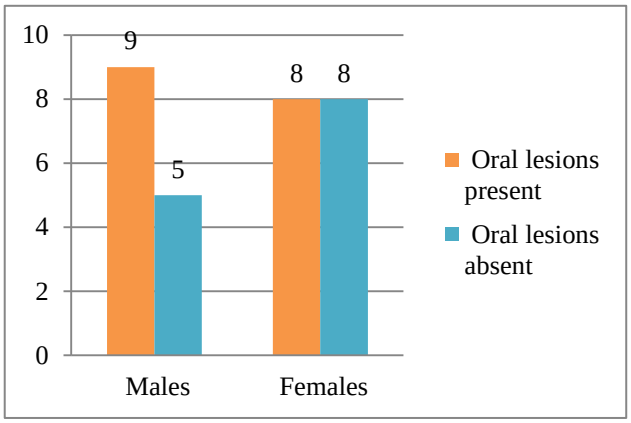

Figure 2: Incidence of oral lesions.

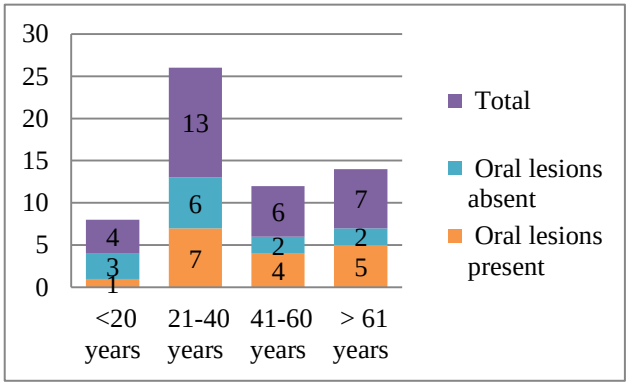

Figure 3: Age Distribution and incidence of oral lesions.

Classical lichen planus seems to be the characteristic presentation with 54% (16) of patients manifesting the same. This was succeeded by hypertrophic lichen planus (30% or 9 patients) and genital lichen planus, linear lichen planus and lichen planus pigmentosus with 3% or 1 patient each. Two patients presented with only oral lichen planus as the chief complaint (Figure 4).

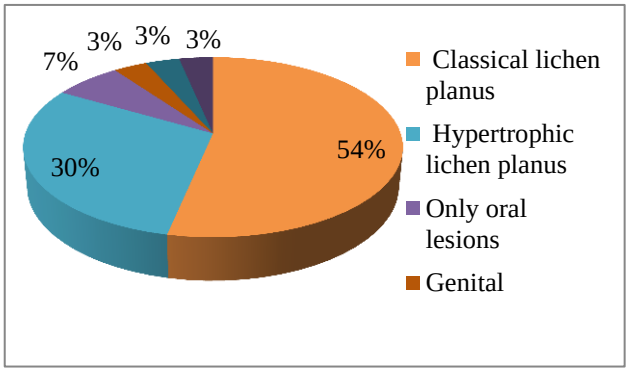

Figure 4: Different types of lichen planus.

With regards to the relationship between different types of lichen planus and oral mucosal involvement, classical type presented with the most oral involvement (56.25% or 9 patients). Of the 9 patients with hypertrophic lichen planus, only 4 (44.44%) had oral involvement. While each patient with linear lichen planus and lichen planus pigmentosus presented with oral mucosal involvement, the patient with genital lichen planus lacked the same (Figure 5).

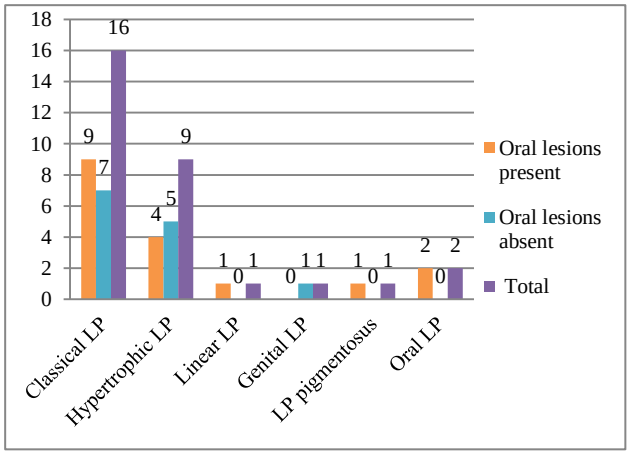

Figure 5: Incidence of oral lesions in different types of lichen planus

Figure 6: Hypertrophic lichen planus over bilateral legs.

Figure 7: Lacy white streaks on the buccal mucosa.

DISCUSSION

Of the 30 patients with lichen planus, our study showed a female preponderance which was in contrast to a study by Bhattacharya et al, who reported no gender predilection.[4] This could be contributed to the fact that there was only a minor imbalance between the number of male and female patients.

The same study reported that 16.8% out of 232 patients had mucosal involvement and in comparison, our study with 56.66% of 30 patients has shown the incidence of oral lesions in lichen planus to be statistically significant with a p-value of less than 0.0001.[4]

While our study showed a female preponderance of lichen planus, oral lesions were present in a majority of male patients. This is in contrast to a study by Lavanya et al which reported a female preponderance of oral lichen planus.[5]

The majority of our patients fell under the age group of 20-40 years and the same was viewed in a study by Bhattacharya at al.[4]

Classical form of lichen planus was the commonest morphological presentation in which oral involvement was seen. Though hypertrophic lichen planus was the second most common presentation with 9 patients, only 4 of the 9 patients exhibited any form of oral involvement.

While in our study, there is not enough genital lichen planus cases, studies have shown the concomitant occurrence of genital lichen planus with oral lichen planus making screening of the genitalia a must in cases of lichen planus especially with oral involvement.[6]

CONCLUSION

This study has statistically proven the significance of oral involvement in cutaneous lichen planus and was done to highlight the importance of the same. Oral lichen planus can be a forerunner of genital involvement as well as malignancies and it is important to keep this in mind while examining a case of lichen planus.

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Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

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