THE CLINICAL PROFILE OF ORAL LICHEN PLANUS

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ABSTRACT

OBJECTIVES

The objective of the study was to determine the clinical profile of oral lichen planus.

METHODOLOGY

This retrospective cohort study was carried from January 2011 to December 2015 at the Department of Oral and Maxillofacial Surgery, Sardar Begum Dental College, Peshawar.A total of 36 with 14 male and 22 female patients having oral lichen planus from were selected. On defined and population-based sample the age selected was ≥ 20 years and divided into four categories i.e..,20-29 years,30-39 years,40-49 years and 50-59 years. The diagnostic criteria proposed by van der Meij et al [23] in 2003 based on the WHO definition of oral lichen planus were used to identify the cases of oral lichen planus.That entire patient's with incomplete records and aged > 60 years were excluded. The data was analyzed through SPSS 22 at the significance level of $p < 0.05$ and Chi-square statistics was applied for site and gender association.

RESULTS

The mean age presentation was 39.2 (SD± 15.49) years. The female to male ratio was 1:57:1. The dominant aged group was 30-39 years with n=16 (44.44%).The buccal mucosa was the most common site involved n=28(77.8%).Reticular type of oral lichen planus was the most common form and was present in n=22(61.1%) patients however, bilaterally involved mucosa was commonly seen. Chi-square statistics showed a significant association between bilateral involvement of oral mucosa in oral lichen planus with both male and female (x^2= 5.833, p= 0.016).

CONCLUSION

The most common site involved in oral lichen planus was buccal mucosa, most common form was atrophic with female predominance and bilaterally involved oral mucosa was significantly associated with gender.

KEY WORDS

Oral Lichen Planus, Clinical Profile, Oral Mucosa.

INTRODUCTION

Oral lichen planus is chronic mucocutaneous disorder that affects oral mucosa, skin and other mucous membrane and may be due to the immune response of CD8+ lymphocytes to antigen on lesional keratocytes[1,2] . English physician Erasmus Wilson in 1866 described this condition to the world while Louis-Frédéric Wickham allocate Wickham Striae in 1895 to the interlacing white keratotic lines in the lesion [3,4]. Oral lichen planus are characteristically raised multiform white lesions, accompanied by areas of erosions and pigmentation [1]. Oral lichen planus has six clinical variants which may occur individually or in combination: papular, reticular, plaque-like, atrophic, erosive and bullous [5]. The reticular form has better prognosis as 40% of cases has spontaneous remission[6], the erosive type being long standing with frequent exacerbations, severe pain and complications. Oral lesions are accompanied by skin lesions in approximately 50% of patients and may occur before, at the same time or after the skin lesions [7]. The lesions more commonly involved are bilateral buccal mucosa, mucobuccal fold, gingiva and less commonly tongue, palate and lips [8]. Reticular type is most

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commonly involved in male as compared to female and usually asymptomatic however, erosive and atrophic are painful and causing burning sensation [9].

Approximately 20 % and 15 % of oral lichen planus is related to genital and cutaneous lichen planus respectively [10, 11]. World Health Organization (WHO) classify oral lichen planus as potentially malignant disorder due to progression of oral lichen planus to the development of oral squamous cell carcinoma with the frequency of malignant transformation of 0.4-5.3% [12,13]. The research available from the developed countries well- described the demographic and clinical profile of oral lichen planus [14-18] however such sequence of research is rare from developing countries [19-21].The aim of the study was to determine the clinical profile of oral lichen planus.

METHODOLOGY

This retrospective cohort study was carried from January 2011 to December 2015 at the Department of Oral and Maxillofacial Surgery, Sardar Begum Dental College, Peshawar. Patients were identified by their medical records. A total of 36 patients with 14 male and 22 female patients having oral lichen planus from January 2011 to December 2015 were selected. On defined and population-based sample the age selected was ≥ 20 years and divided into four categories i.e..,20-29 years,30-39 years,40-49 years and 50-59 years. The diagnostic criteria proposed by van der Meij et al [22]in 2003 based on the WHO definition of oral lichen planus were used to identify the cases of oral lichen planus which include clinical as well as histopathological features but here only clinical features were included to diagnose oral lichen planus which was made through the clinical evaluation of patient's oral cavity by a specialist team at the Department of Oral & Maxillofacial Surgery. That entire patient's with incomplete records and aged > 60 years were excluded. The data was analyzed through SPSS 22 at the significance level of $p < 0.05$ and Chi-square statistics was applied for site and gender association.

RESULTS

The mean age presentation was 39.2 (SD± 15.49) years. The female to male ratio was1.57:1. The dominant aged group was 30-39 years with *n=16 (44.44%)* followed by 40-49 years aged group, *n=12 (33.33%).*The least effective aged group is 20-29 years, *n=03 (8.33%)* as shown in the figure 1. The buccal mucosa was the most common site involved *n=28(77.8%).*Gingiva and tongue were affected in *n=03(8.3%)* and *n=05(13.9%)* patients respectively. Reticular type of oral lichen planus was the most common form and was present in *n=22(61.1%)* patients. Erosive form was observed in *n=12(33.3%)* patients while atrophic oral lichen planus was seen in *n=02(5.6%)* patients however, bilaterally involved mucosa was commonly seen as shown in the table.1. Chi-square statistics showed a significant association between bilateral involvement of oral mucosa in oral lichen planus with both male and female (x^2= 5.833, p= 0.016) as shown in table.2

Figure # 1: Age group distribution of Oral lichen planus

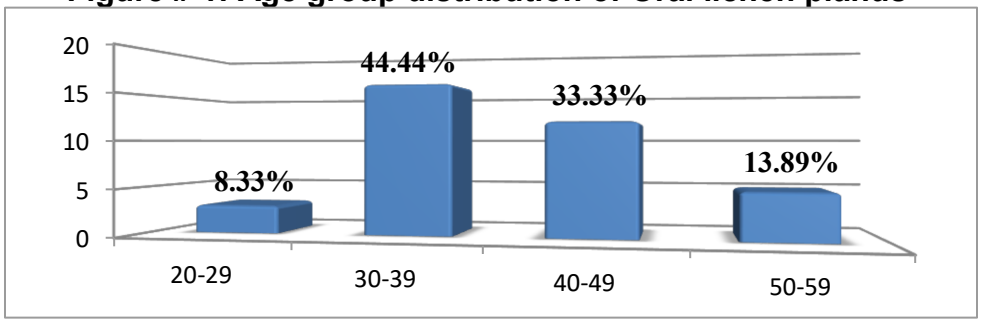

Table 1: Oral Lichen Planus involving sites and types

Bilateral *n(%)*	Unilateral *n(%)*	Reticular *n(%)*	Erosive *n(%)*	Atrophic *n(%)*	Buccal mucosa *n(%)*	Tongue *n(%)*	Gingiva *n(%)*
23(63.9%)	13(36.1%)	22(61.1%)	12(33.3%)	02(5.6%)	28(77.8%)	05(13.9%)	03(8.3%)

Table 2: Chi-Square statistics showed a significant association with site Involvement (p< 0.05)

	Unilateral	Bilateral	Mean	Standard Deviation	Chi-square Statistics	P value (*p< 0.05)*
Male	05	09	7	±2.828	5.833	0.016
Female	08	14	11	±4.242		

DISCUSSION

This retrospective study was done to determine the clinical characteristics of oral lichen planus patients in relatively small cohort from Peshawar, Pakistan. In this study, we observed that female outnumbered male with ratio of (F:M=1.57:1), which is in agreement with the report of Eisen D[14] however Munde et al[23] in their retrospective study observed that male predominate female (M:F=1.61:1) which contradict our study. The bilaterally involved oral mucosa is more effected which support the study done by Ingafou M et al[24]. According to two categories of clinical form classified by Gandolfo et al[17] and Carbone et al[18]the prevalence of reticular oral lichen planus in their series were 59.7% and 58.9% respectively likewise, the prevalence in our study which is 61.1% and is not in agreement with Munde et al[24].Our study also revealed that the most common site involved is buccal mucosa which support the sudy of Gandolfo et al[17] and Carbone et al[18].Oral lichen planus is more prevalent in the 4th decade of life in our study (mean age=39.4 years), which is lower than the mean age reported in central China (50.4 years)[21], UK (52.0 years)[24],Spain (56.4 years)[25] and Italy (56.7 years)[17] and support the study done by Munde et al[23].

A retrospective study has many restrictions and cannot be balanced decently with prospective study but they are applicable in assessing patient populations. The clinical characteristics of oral lichen planus show consistency in most of the results with the previous studies while few are not in agreement with our study. The lack of uniformity may be due to the different geographic areas. Oral lichen planus is a chronic disease and it is mandatory for Oral health care professionals to thoroughly examine the patient and evaluate the status of the patient accordingly with long term follow up which is obligatory for oral lichen planus patients.

CONCLUSION

The most common site involved in oral lichen planus was buccal mucosa, most common form was atrophic with female predominance and bilaterally involved oral mucosa was significantly associated with gender.

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