



Role of stress as an etiologic factor for oral lichen planus

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ABSTRACT

Background: The incidence of Autoimmune Disorder is on a steady rise and though a lot of research is going on, the mystery regarding the etiology still remains unravelled.

Oral lichen planus, a lesion considered to have an autoimmune basis is frequently encountered by the dental clinician and hence a thorough knowledge of its etiology and treatment plan is vital to us.

Stress is considered as a major etiologic factor in almost all autoimmune disorders and oral lichen planus being one of them, an attempt to evaluate its role is the aim of this paper presentation.

Method: A study of 20 cases clinically and histopathologically diagnosed with lichen planus was done. A questionnaire aimed at assessing their stress level was given to the patients.

Results: 25% patients showed mild Stress, 40% Patients showed moderate Stress while 35% patients showed severe stress level.

Conclusion: Stress can be considered as a one of the major etiologic factor for oral lichen planus.

Keywords: Oral lichen Planus, Stress, Hamilton anxiety Scale

INTRODUCTION

The incidence of Autoimmune Disorder is on a steady rise and though a lot of research is going on, the mystery regarding the etiology still remains unravelled. Oral lichen planus, a lesion considered to have an autoimmune basis is frequently encountered by the dental clinician and hence a thorough knowledge of its etiology and treatment plan is vital to us. First described by Wilson in 1869, lichen planus is a disease that affects the skin, scalp, nails, and mucosa.^[1] Its development is chronic, with possible malignant degeneration. The cause of the disease is unknown, but the possibility that immunologic factors are involved has been considered. Other factors that have been noted are psychosomatic and lichenoid reactions to drugs. Andreasen in 1968 pointed out that patients with lichen planus were found to be in conditions of stress, anxiety, and emotional changes; other authors have also reported this association.^[2]

MATERIALS AND METHODS

20 subjects clinically and histopathologically diagnosed with oral lichen planus were selected from Outpatient Department of Oral Medicine and Radiology. Study was performed after the approval from the institutional ethical committee.

INCLUSION CRITERIA

- Patients with oral lichen planus exhibiting the characteristic clinical features of disease.

- Patients not taking any psychoactive drugs.

METHODOLOGY

- Informed consent was obtained from the patients.
- Patients were asked to sit relaxed in a separate room where only interviewer and patient were present so that patients can tell all the stressful events or conditions if patient is suffering from without any hesitation.
- Hamilton Anxiety Rating Scale (HAM-A) in the form of questionnaire was asked to the patients during interview.^[3]
- Interview was conducted for each patient for half an hour.

STATISTICAL ANALYSIS

As the sample size was small. All the data were studied by Simple Percentile Statistical analysis. And the results were drawn.

RESULTS

20 patients were studied for this study. 13 patients were female while 7 patients were male (Fig.1). Out of 20 patients, 12 were having reticular form of lichen planus while 5 patients were clinically diagnosed with the plaque type of lichen planus and remaining 3 patients showed erosive type of lichen planus (Fig.2)

25% patients showed mild stress, 35% patients showed moderate stress while 40% showed severe stress after applying Hamilton Anxiety Scale. As shown in pie Diagram (Fig.3)

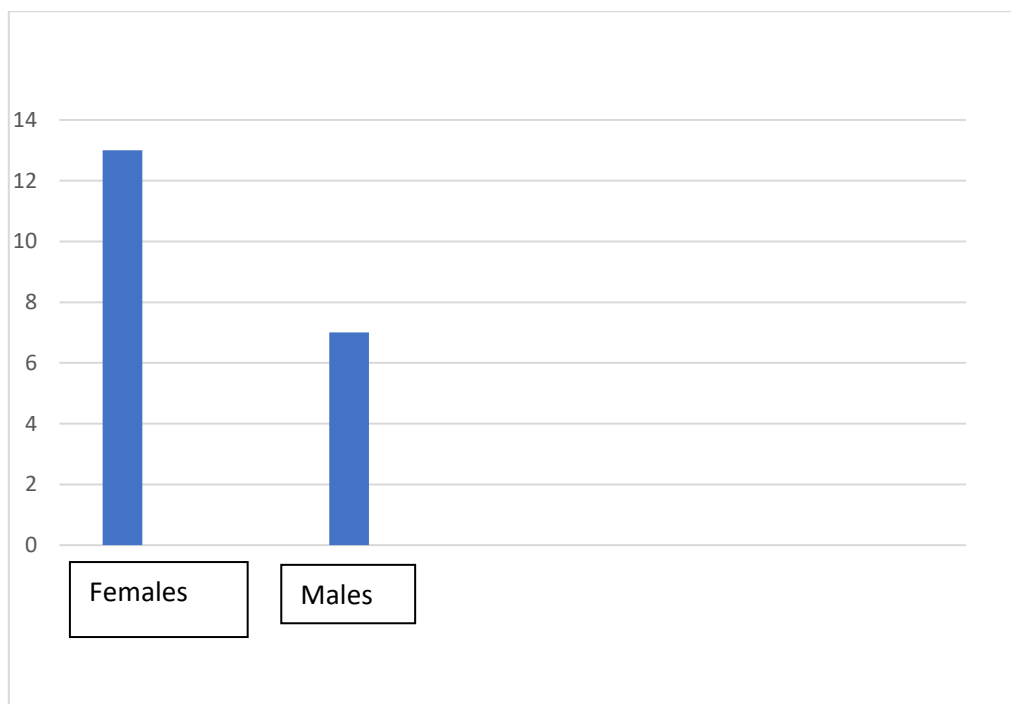


Figure 1 Distribution of Oral Lichen Planus According to Sex

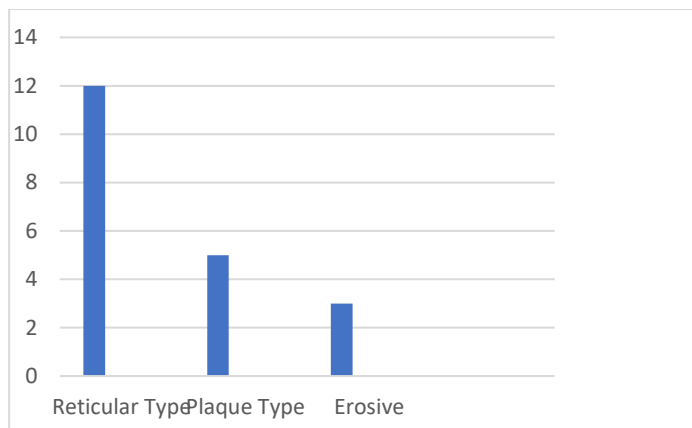


Figure 2 Distribution of subjects according to type of Oral Lichen Planus

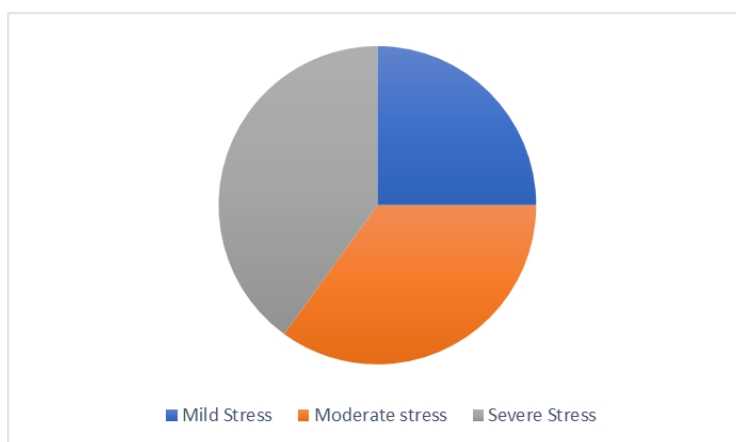
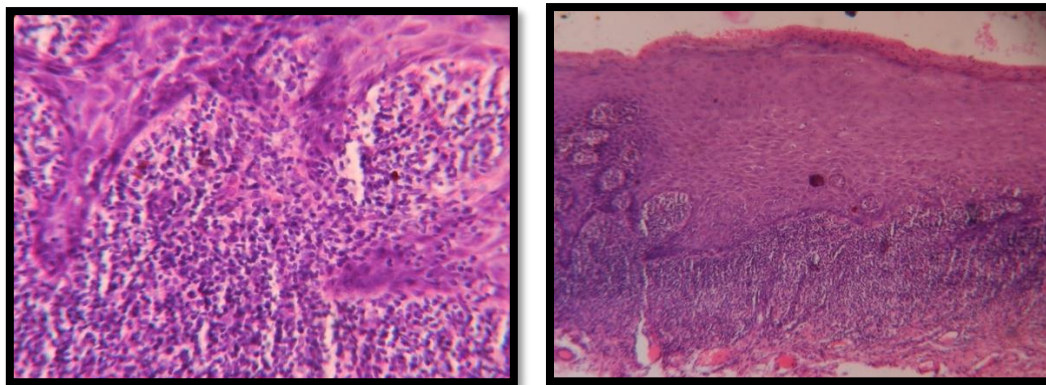


Figure 3 Distribution of patients with Stress Severity as per Hamilton Anxiety Scale



Clinical Photographs of Patients Showing Various forms of Lichen Planus



Histopathological picture of Lichen Planus.

DISCUSSION

Oral Lichen Planus is seen in 1-2% of the adult population and is frequently seen in non-infectious oral mucosal disease.^[4] It affects women more than men (1.4:1) and occurs predominantly in adults over 40 years old.

Mental disturbance has been Considered as one of the Etiologic factors for lichen planus.^[5,6,7,8,9]

The various forms of Oral Lichen Planus reticular, plaque variants are mostly asymptomatic. Most Patients of symptomatic Oral lichen planus are associated with atrophic (erythematous) or erosive (ulcerative) lesions. Symptoms vary from mucosal sensitivity to hot and spicy food to continuous debilitating or burning pain.^[10]

Hampf et al. in a controlled study using the Cornell Medical Index Psychological questionnaire, found a significant difference in mental disturbance between OLP and non-OLP Individuals. He found that the OLP patients were more disturbed as compared to the normal individuals.^[11]In present study as well, results showed that stress mostly associated with patients with oral lichen planus. Burkhart et al. 24 assessed medical history, lifestyle and health habits and pointed out to the occurrence of stressful events at the onset of OLP in 51 per cent of the subjects.^[9]

As per S Chaudhary, Psychological stressors play an important role in the causation of Oral Lichen Planus.^[12]Jos L. Rojo-Moreno, et al. it was not established that the observed psychologic alterations constitute a direct etiologic factor of oral lichen planus.^[13]Vallejo M.J stated that Anxiety and depression constitute risk factors that could influence the development of OLP.^[14]

In the present study Informed consent was obtained from the patients. Hamilton Anxiety Rating Scale (HAM-A) in the form of questionnaire was asked to the patients during interview. The present study showed that stress is associated with patients suffering from the oral lichen planus.

CONCLUSION

Oral lichen planus is most commonly seen in individuals with more stress levels as compared other individuals and literature assures the higher levels of stress in patients with Oral Lichen Planus. In the present study with the small sample size, the results of this study seem to be like majority of existing literature. More strong result can be achieved with plenty of sample size using more subjective and objective based stress anxiety scale. To conclude Stress can be considered as one of the major etiologic factors for Oral Lichen Planus.

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