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LICHEN PLANUS OF TONGUE, AN UNUSUAL PRESENTATION: A CASE REPORT

ABSTRACT

Lichen planus (LP) is a chronic inflammatory disease that affects the skin and mucus membrane. The prevalence of oral lichen planus ranges between 0.5% to 2.2%. Oral lichen planus (OLP) was first described clinically by Wilson in 1869 as a chronic mucocutaneous disorder. LP is predominantly a disease of the middle aged and the elderly population.

Keywords: Lichen planus, Mucocutaneous, Oral cavity, Tongue.

INTRODUCTION

Lichen planus is a chronic inflammatory disease that affects the skin and mucus membrane. The prevalence of oral lichen planus ranges between 0.5% to 2.2%.¹ Oral Lichen Planus was first described clinically by Wilson in 1869 as a chronic mucocutaneous disorder.² LP is predominantly a disease of the middle aged and the elderly population.³

CASE REPORT

A 42 year old female presented in dermatology department with impaired taste and discomfort over tongue for 3-4 months . There was no history of dental amalgam, betel nut chewing, drug intake, diabetes mellitus and radiotherapy. On local examination violaceous, purple to whitish

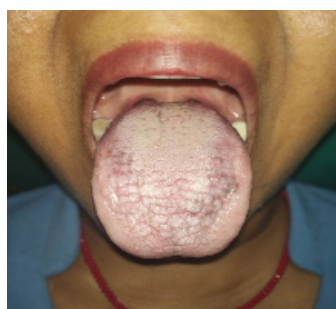


Figure I. lichen planus of tongue showing irregular fixed violaceous to white plaque .

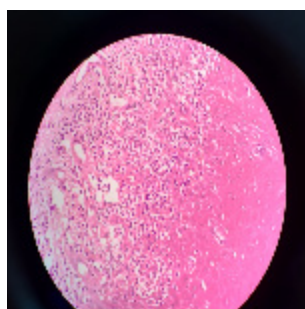


Figure II. 10x magnification showing band like white plaque infiltrate and hyperkeratosis.

colored reticulate plaque was present in the dorsum of the tongue (Figure I). The buccal mucosa, palate, lip were normal. Systemic,

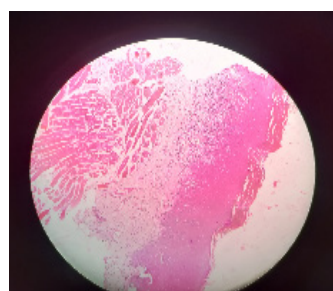


Figure III. 100x Hyperkeratosis and focal infiltrate predominantly plasma cells.

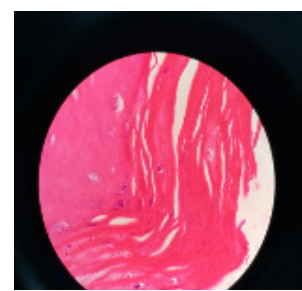


Fig IV. 40x Chronic inflammatory cells, para infiltrate predominantly plasma cells. Parakeratosis along with vacuolar degeneration focally.

cutaneous, genital mucosa along with hair and nail examination were normal. The lesion was non tender on palpation . About 3mm punch biopsy was taken from the lesioned site of the tongue under aseptic precaution.

Histopathological examination showed characteristic features of the lichen planus. Hyperkeratosis with focal parakeratosis along with vacuolar degeneration and band like infiltrate with predominant lymphocyte and plasma cells were present (Figure II, III, IV). Serology like HbsAg, anti-HCV were non reactive. Routine blood investigation, renal function test, thyroid function test , liver function test were within normal limit. She was advised for good oral hygiene and was treated with topical steroid (0.1% triamcinolone acetonide gel) for 1 month and then with topical calcineurin inhibitor until the remission of lesion.

DISCUSSION

Oral lichen planus (OLP) can be the sole clinical presentation of the disease or it can be accompanied by cutaneous or other mucosal manifestations including the genital area, gastrointestinal tract, and eyes.⁴ It was thought to be of multifactorial origin the exact etiopathogenetic is not known. In a genetically predisposed individual various endogenous and exogenous triggers like trauma, friction due to sharp edge of tooth, cigarette smoke, tobacco chewing etc. exists. This leads to activation of cytotoxic T cells against the basal cells of the mucosa, which further increases adhesion molecules.⁵ OLP normally has a multifocal involvement .i.e. multiple sites in oral mucosa are involved which are bilaterally symmetrical. The commonest site involved is the buccal mucosa in most of the studies.⁶ Few studies report tongue to be the second common site involved in OLP.⁷ Isolated involvement of one site of oral mucosa is very rare. Gingiva has been the commonest single site reported with an incidence of 8.6 % .⁶ The involvement of dorsum of tongue very common associated to other oral mucosal disease but the isolated involvement is an uncommon finding and was seen only in 0.6 % of patients according to Eisen et al.⁶ Petrusi et al. have reported the sole involvement of the lip.⁸ A study by Andreasen et al has also detected unilateral lichen planus in 5.2% of the oral lichen planus.⁹ In our patient she had an isolated involvement of dorsum of tongue with reticular irregular fixed plaque . Some time more than one type can be present . Tongue and buccal mucosa lesions are likely to be mistaken for leucoplakia and the gum margin for the gingivitis or chronic candidiasis . Smokers patch should also be excluded which present over the palate.¹ The mainstay of management of OLP; corticosteroid but other modalities like calcineurin inhibitors, retinoids, dapsone, hydroxychloroquine, mycophenolate mofetil and enoxaparin have also used. Data on pathogenesis of the disease currently also suggests that blocking IL-12, IFN-gamma, TNF-alpha, RANTES, or MMP-9 activity or upregulating TGF-alpha1 activity in OLP may be of therapeutic value in the future.¹⁰ Although oral lichen planus are resistant to treatment and frequent relapse can occur but our patient respond well to

topical corticosteroid and calcineurin therapy and remission of the lesion was achieved.

CONCLUSION

In most of the cases lichen planus is associated with involvement of buccal mucosa. Mucous membrane lesion with or without skin involvement is common but the isolated involvement of tongue is extremely uncommon (0.6%). High index of suspicion is required to diagnose these cases. One of the most important complication of oral lichen planus is the development of oral squamous cell carcinoma with a frequent malignant transformation. Thus early diagnosis is the key for prevention of malignant transformation.

REFERENCE

1. Lichen Planus and Lichenoid disorders. In Griffith .C, Barker J, Bleiker T, Chalmers R, Creamer D, editors. Rook's Textbook of Dermatology. 9th ed. Blackwell; 2016:37-5.
2. Wilson E. On lichen planus. J Cutan Med Dis Skin 1869; 3:117-13
3. Silverman S Jr, Griffith M. Studies on oral lichen planus II. Follow-up on 200 patients, clinical characteristics, and associated malignancy. Oral Surg Oral Med Oral Pathol 1974;37:705-10.
4. Gupta M, Varma K, Thakur S. Isolated involvement of tongue in oral lichen planus mimicking oral candidiasis. SJAMS. 2017;5(9B):3557-60.
5. Lavanya N, Jayanthi P, Rao UK, Ranganathan K. Oral lichen planus: An update on pathogenesis and treatment. Journal of oral and maxillofacial pathology. 2011;15(2):127.
6. Eisen D. The clinical features, malignant potential, and systemic associations of oral lichen planus: a study of 723 patients. Journal of the American Academy of Dermatology. 2002;46(2):207-14
7. Varghese SS, George GB, Sarojini SB, Vinod S, Mathew P, Mathew DG, et al. Epidemiology of oral lichen planus in a cohort of south Indian population: a retrospective study. Journal of cancer prevention. 2016;21(1):55.
8. Petruzzi M, De Benedittis M, Pasture L, Pannone G, Grassi FR, Serpico R. Isolated lichen planus of the lip. International journal of immunopathology and pharmacology. 2007;20(3):631-5.
9. Andreasen JO. Oral lichen planus: I. A clinical evaluation of 115 cases. Oral Surgery, Oral Medicine, Oral Pathology. 1968;25(1):31-42.
10. Sugerman PB, Savage NW, Walsh LJ, Zhao ZZ, Zhou XJ, Khan A, et al. The pathogenesis of oral lichen planus. Crit Rev Oral Biol Med. 2002;13:350.