Lichen Planus in Four Clinical Forms

Vasu S. Saxena¹, Pandey Prashant Bhai²
¹Senior Lecturer, Department of Oral Medicine and Radiology, Career Postgraduate Institute of Dental Sciences and Hospital, Lucknow, Uttar Pradesh, India, ²Postgraduate Student, Department of Oral Medicine and Radiology, Career Postgraduate Institute of Dental Sciences and Hospital, Lucknow, Uttar Pradesh, India

Lichen planus is an autoimmune disorder which comes under lichenoid reactions. It is T-cell mediated cytotoxic reaction directed against antigen expressed by basal cell layer of the oral mucosa. Autoreactive T-lymphocytes may be of primary importance for the development of oral lichen planus. Lichen planus presentations in the oral cavity are in 6 forms: Reticular, papular, plaque, bullous, erythematous and ulcerative. We present a case report of 4 forms in a patient.

Keywords: Auto immune reactions, Lichen planus, T-lymphocytes

INTRODUCTION

Lichen planus is a chronic inflammatory mucocutaneous disease, which frequently involves the oral mucosa. In the majority of patients with oral lichen planus (OLP) there is no associated cutaneous lichen planus or lichen planus at other mucosal sites. This may be called as “isolated” OLP. The disease most often seen in middle-aged group patient and more common in females compared to males.¹ OLP was first described by Wilson in 1869 as a chronic mucocutaneous disorder.² A clinical evaluation of the oral lesions is based on six clinical forms described by Andreason³ reticular, papular, plaque, atrophic, erosive and bullous. The most common type is reticular form with the characteristic feature of Wickham’s striae radiating from papules. Reticular, papular and plaque forms are asymptomatic but atrophic (erythematous), erosive (ulcerative) OLP is often associated with a burning sensation and pain.⁴ The signs that may be indicative of transformation, such as the extent of symptoms and loss of homogeneity, should be assessed thoroughly at each appointment. When there are changes in clinical appearance, the follow should be shortened, and biopsy should be done.⁵ We are presenting a case of lichen planus with 4 clinical forms depiction.

CASE REPORT

A 65-year-old male patient came to the Department of Oral Medicine and Radiology in our college with the complaint of pain and burning sensation in the mouth on the right cheek since 1 week. He was asymptomatic 1 week back and then he noticed burning sensation during eating, followed by pain over the same region. Pain was dull, irregular, localized, aggravates on taking food and relieves after drinking water. There was a history of large vesicular eruptions at the same site intermittently which burst and formed ulcers. There was no history of fever or any other associated medical symptoms. Patient underwent extraction of the tooth about a year back. He was moderately built and nourished. His vitals were in normal range. Patient entered the department in normal gait and showed no significant changes on skin, hairs, eyes and nails. Face was symmetrical bilaterally. There was solitary right submandibular lymph node was palpable which was firm, mobile and tender. On examination, intra orally, an erythematous lesion was present on the right buccal mucosa of approximately 2 cm × 2 cm in size (Figure 1) surrounded by white keratotic striations. Interlacing hyperkeratotic striations were seen on the periphery of the lesion. Single vesicular eruption of 7 mm × 7 mm in size was seen at the posterior border of the lesion (Figure 1 shown within circle) which were associated with burning and pain. Another lesion was also present on left buccal mucosa with hyperkeratotic striations without any ulcerations or erythematous component (Figure 2) and there were no symptoms associated. Similar lesion was also present on the left side of the soft palate behind the hamular process without any erythematous component. Small well-circumscribed depapillated area was present on the dorsum of the tongue with no associated symptoms. Clinically we diagnosed it as a lichen planus with four components; reticular, bullous, erythematous and ulcerative. We included discoid lupus erythematosus, mucous membrane pemphigoid and lichenoid stomatitis as a differential diagnosis.

Complete blood examination, hemogram and incisional biopsy were done which came out to be typical histological
picture of lichen planus with lymphocytic infiltrations and inflammatory components.

We started with topical triamicinoloneacetonide (0.1%) ointment 5-6 times a day with simultaneous application of clotrimazole (1% w/v) to prevent any superinfection. Capsule Lycop a G (antioxidants) containing lycopene, carotenoids, ginseng and Withania somnifera was also started two times a day due to the severity of the lesion. Patient was recalled after 10 days for follow-up. He was relieved with associated symptoms on right buccal mucosa. We continued the same medications and recalled the patient after every 15 days. After 1 month of follow-up erythematous component and the ulcerative area were healed up and vesicular eruptions were stopped on the right buccal mucosa lesion. There were hyper pigmentations seen on the sites of healing. Peripheral white components of striations were present with markedly less associated symptoms. Left buccal mucosa lesion and soft palate region also showed hyper pigmentations with no associated symptoms. We reduced the application frequency to three to four times daily of tacrolimus and clotrimazole. After 2 months of follow-up, patient reported with striations over few areas on buccal mucosa and rest of the lesions were healed completely with hyper pigmentation s. We referred the patient for oral prophylaxis to the respective department, and he is still on follow-up with free of lesions (Figures 3 and 4).

**DISCUSSION**

OLP is a common chronic immunological inflammatory mucocutaneous disorder that varies in appearances from keratotic to erythematous, ulcerative and bullous.7 1.5% of Indians suffer from this disorder, age ranges from 30 to 70 years with female predilection male:female - 1:1.4.8 The different etiological factors considered for lichen planus are genetic background, dental materials, drugs, infectious agent, autoimmunity, immunodeficiency, food allergy, stress, habits, trauma, diabetes, hypertension, malignant...

---

**Figure 1:** A bulla seen on right side of buccal mucosa at the margin of the lesion shown by the circle

**Figure 2:** Interlacing hyperkeratotic white lines or striations present on left side of buccal mucosa

**Figure 3:** Post-treatment picture showing healing of the lesion, with melanotic pigmentation on right side of buccal mucosa

**Figure 4:** Post-treatment, follow-up picture showing melanotic pigmentation on left side of buccal mucosa, suggestive of healing
neoplasm and bowel diseases. The pathogenesis of lichen planus is thought of from four mechanisms antigen-specific cell-mediated immune response (heat shock proteins, CD4+ T helper cells, CD+ cytotoxic T-cells), nonspecific mechanism (epithelial basement membrane, mast cells, chemokines, matrix metalloproteinases), autoimmune response, humoral immunity (circulating auto antibodies to desmoglin 1 and 3).

An explanation of the different clinical manifestations of OLP is related to the magnitude of the subepithelium inflammation. A mild degree of inflammation produces hyperkeratosis whereas intense inflammation will lead to partial or complete deterioration of epithelium, histopathologically perceived as atrophy, erosion or ulceration. The characteristics clinical presentations of various forms of OLP are sufficient to make a correct diagnosis. Biopsy is recommended when there is suspected dysplasia or malignant transformation.

Management of OLP is now a day based primarily to alleviate the symptoms and monitor the dysplastic changes if any. The treatments are mostly indicated for the symptomatic forms such as ulcerative, erythematous, bullous, which gives patient discomfort and burning sensations in day to day life. Corticosteroids remain the first line of treatment. Topical steroids are widely used in the treatment of OLP to reduce pain and inflammation. Triamcinolone acetonide is commonly used in concentration of 0.1%. Topical application of cyclosporine, tacrolimus and retinoids has been suggested as a second line of treatment. Tacrolimus should only be used by experts when symptomatic OLP lesions are recalcitrant. Topical application of antifungal like clotrimazole 1% should be given to prevent any fungal superinfection during the course of treatment.

Other modalities of treatment are ultraviolet radiations which are given in the form of photo chemotherapy with 8-methoxypsoralen and long ultraviolet light. It is basically used in skin lesions. In 2004, Barclay used 308-nm Excimer laser radiation in OLP patients. This technique showed high patient acceptance in those with symptomatic OLP.

CONCLUSION

Lichen planus as we all know is a chronic mucocutaneous lesion which has different clinical forms. Main complain of patients are burning, and pain that should be the mainstay of the treatment because complete cure of this lesion is still not known. Chances of dysplasia and malignant transformation should be kept in mind while treatment because this lesion has tendency for that. We keep on finding newer modalities for this lesion, but we should keep in mind about patient compliance and affordability which can alter the results.

REFERENCES


How to cite this article: Vasu SS, Bhai PP. Lichen planus in four clinical forms. IJSS Case Reports & Reviews 2014;1(4):5-7.

Source of Support: Nil, Conflict of Interest: None declared.