

PACIFIC JOURNAL OF MEDICAL SCIENCES

{Formerly: Medical Sciences Bulletin}

ISSN: 2072 – 1625



Pac. J. Med. Sci. (PJMS)

www.pacjmedsci.com. Email: pacjmedsci@gmail.com.

ACTINIC LICHEN PLANUS OF LIP – A CASE REPORT

***Vidya Holla A, Laxmikanth Chatra, Prashanth Shenai K, Veena KM,
Prasanna Kumar Rao and Rachana V Prabhu**

**Department of Oral Medicine and Radiology, Yenepoya Dental College, Yenepoya University,
Nithyanandanagar, Deralakatta, Mangalore, Karnataka, India**

***Correspondence Author: Vidya Holla A; avholla82@yahoo.co.in**

Running title: Actinic lichen planus

ACTINIC LICHEN PLANUS OF LIP – A CASE REPORT

*Vidya Holla A, Laxmikanth Chatra, Prashanth Shenai K, Veena KM,
Prasanna Kumar Rao and Rachana V Prabhu

Department of Oral Medicine and Radiology, Yenepoya Dental College, Yenepoya University,
Nithyanandanagar, Deralakatta, Mangalore, Karnataka, India

*Correspondence Author: Vidya Holla A; avholla82@yahoo.co.in

Running title: Actinic lichen planus

ABSTRACT:

Actinic lichen planus is a rare variant of lichen planus seen commonly in tropical and subtropical countries in the dark complexioned individuals. It manifests in the sun exposed areas of the face, neck and limbs. Though many cases have been reported in the skin, few lesions associated with the lip have been reported. The Lip is highly susceptible to actinic changes increasing the chances of malignancies. This is an unusual case report of 32 year old female patient where the lip lesion was seen mimicking discoid lupus erythematoses

Key Words: actinic lichen planus, erosive lip lesion, photosensitivity, lichen planus of lip,

Received December 2011, Accepted February 2012

INTRODUCTION:

The lips occupy prominent position on the face of a person. The abnormalities can be obvious and be a source of embarrassment for the patient. Since lips form the gateway to the oral cavity, lesions affecting the oral cavity and dermatologic diseases are seen manifesting in the lips. Due to the position, lack of keratin covering, thinner epithelium, smaller amounts of melanin, and decreased secretions from

sebaceous and sweat glands, all of which normally protect skin from radiation, are not present in lips making it more susceptible to actinic damage [1].

CASE REPORT:

A-32- year old female patient who reported to Department of Oral Medicine and Radiology, Yenepoya Dental College, with the chief complaint of red erosive lesions on the lower lip

with periods of exacerbations on exposure to sunlight and remissions for the past 25 years. These lesions initiated as papules which ulcerated and later became infected and give out purulent discharge. The present lesion was seen since past two weeks. The patient did not give any history of consuming any medications associated with the occurrence of the lesions. She had consulted doctors before who had prescribed her steroid topical preparations- mometasone cream (Momate-F cream) that gave relief during exacerbative episodes. The patient had burning sensation associated with the lip lesions. On extraoral examination there were no cutaneous lesions, only lesions present on the lips. The lower lips showed diffuse involvement from the vermillion upto the lower border of the lip and the lesion appeared atrophied in the centre, and hyperpigmented at the periphery. There was presence of epithelial tags throughout the erosive lip lesions. There were no whitish striae around the lesions. The upper lip showed presence of violaceous papules at the midline region associated with depigmentation [Figure 1].

Intraorally, there were radiating whitish striae in the buccal mucosa bilaterally at the level of occlusal plane associated with increased melanin pigmentation [Figure 2]. There were carious lesions present though no amalgam restorations were present. There was mild to

moderated plaque accumulation with no ulcerations of any mucosal surfaces present. Based on the history and clinical presentation a provisional diagnosis of actinic lichen planus of the lip was made. However discoid lupus erythematoses (DLE), actinic cheilitis of lip and erythema multiforme minor also shows similar clinical features. The reasons for these are presented in the discussion. Incisional biopsy of the buccal mucosa as well as lip region was done. The histological picture showed the presence of an atrophied stratified squamous epithelium and underlying connective tissue showing dense chronic inflammatory infiltrate with extensive melanin pigmentation and melanophages suggestive of a healing lichen planus lesion [Figure 3]. The lip lesion histologically atrophied epithelium and connective tissue presented with chronic inflammatory cells consistent with the findings present with the intraoral section.

The patient was given a systemic methyl prednisolone (Tab Zempred 8.0mg), a total dose of 12.0mg given in divided doses for a period of 2 weeks and topical clobetasole ointment (Clonate ointment 20 mg) to be applied on the lip lesions only for a period of 3 weeks. After three weeks there was complete remission of erosive lesions, however depigmentation was present [Figure 4].



Figure 1: Erosive lesions seen on entire lower lip along with epithelial tags. Upper lip shows violaceous papules.



Figure 2:
A. Right buccal mucosa shows healing lichen planus with post inflammatory pigmentation.
B. Left buccal mucosa shows healing lichen planus with post inflammatory pigmentation.

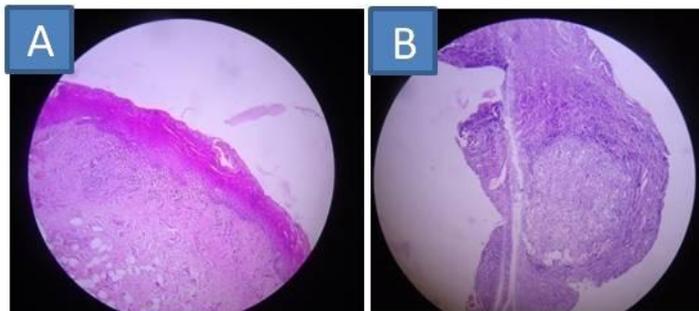


Figure 3:
A. Atrophied epithelium with dense chronic inflammatory infiltrate, increased melanin pigmentation with melanophages-healing lichen planus.
B. Atropied epitheium with connective tissue with dense chronic inflammatory infiltrate.



Figure 4: Complete remission of erosive lesion.

DISCUSSION:

Lichen planus (LP), first described by Erasmus Wilson in 1869 and is related to a T-cell mediated immune response whose etiology is not correctly understood [2]. The mucosal lesions are more chronic in nature and persist for many years. The reticular form occurs more frequently and is characterized by white lacy streaks known as Wickham's striae, due to histologic folding of stratum granulosum [2, 3]. The reticular form usually causes no symptoms, it involves the posterior mucosa bilaterally, upper and lateral surfaces of the tongue, the gums and the palate [2, 4]. The erosive form is not as common as the reticular form and is painful, interfering with chewing.

Clinically, erosive lichen planus manifests as atrophic and erythematous areas frequently surrounded by radiating thin striae [2, 4]. In certain cases, the epithelium may separate if erosion is severe, resulting in a relatively rare form of the disease known as bullous lichen planus [2]. Concomitant lesions usually are found, and lesions may change forms during the course of the disease [5]. Lesions regress with post inflammatory hyperpigmentation as seen in the present case in both right and left buccal mucosa.

Actinic lichen planus (ALP), also known as lichen planus tropicus, is a rare variant of LP that typically affects children or young adults with dark skin that live in tropical or subtropical regions [6, 7]. Lichen planus actinicus seen in

sun exposed areas of the face, dorsum of the hands and arms, lips, V-shaped area of the chest and nape of the neck [8].

Four morphologic patterns have been clinically described in the literature [9]. The atrophic type is the most common form and is accompanied by hyperpigmentation. The second type, which is the dyschromic type, shows small, white angular papules that coalesce into plaques on the neck and dorsa of the hands. The classic plaque-like form presents as violaceous papules, and the pigmented form can be seen as melasma-like patches on the face and neck [10]. Our case may represent the classic form of ALP. Unlike classic lichen planus, pruritus, the Koebner phenomenon, and mucous membrane involvement are not commonly seen in all types of ALP [11]. Here, ultraviolet radiation appears to be an important inciting factor under the influence of genetic or other factors (hormonal, toxic, or infectious factors,). Hepatitis viral infection (B and C) is also reported to be a trigger factor in the occurrence of ALP [9, 12 – 15]. On histopathologic examination, epidermal atrophy may be more prominent in lichen planus actinicus which was also seen in our case. DLE was considered as one of the differential diagnosis where in lip involvement is frequent [16].

Clinical manifestations in DLE include well-demarcated discoid lesions or a diffuse cheilitis wherein lesions typically tend to spread from

the vermilion to the surrounding lip skin, obscuring the limits of the vermilion. This feature is useful in differentiating lupus erythematoses from lichen planus of the lip and from other types of cheilitis, as lichen planus lesions are characteristically limited to the vermilion area. The term "lupus cheilitis" is a different or special manifestation instead of a typical lupus erythematoses lesion on that location [16, 17]. Most common mucosal presentation of chronic lupus erythematoses is the oral discoid lesion which presents as a well-demarcated, round or irregular red area that can be atrophic or ulcerated, with white radiating keratotic striae and telangiectases [18]. Lesions are more often asymmetrically distributed in the oral cavity in palate, buccal mucosa, tongue which helps to differentiate it from lichen planus where lesions are bilaterally present [16]. Actinic cheilitis is most commonly seen on the lower lip of middle-aged and older (40 to 80 years), fair-skinned men, who have had excessive exposure to sun during their lives [19]. Actinic cheilitis presents as rough, scaly lips with fissures and ulcerations [20]. Commonly seen as a single lesion, but multiple lesions also occur. The initial sun-induced lesion is whitish-gray or brown, annular and the lip vermilion border becomes indistinguishable and shows generalized atrophy. Plasticity is lost. Marked folds appear along the vermilion perpendicular to the long axis of the lip and often dryness is associated with it. The lower lip especially the labial aspect is more

commonly affected due to the angle of the UV rays striking the vermilion surface. Palpation is important in diagnosis because actinic cheilitis has a fine; "sandpapery" feel to it [21].

Erythema multiforme minor also causes erosive lesions on lips along with mucous membrane involvement is limited to only one site and usually it is the oral mucosa alone that is affected [22].

Intraoral lesions occur predominantly on the non keratinized mucosa and more pronounced on anterior parts of mouth. The lips are also commonly affected and are swollen and cracked, bleeding and crusted. Oral lesions progress through diffuse widespread macules to blisters and ulceration although only ulceration may be seen at presentation.

The patient manifests with fever and malaise at the time of examination [23]. In the present case, there were whitish striae present bilaterally in the buccal mucosa and erosive lesions in the lip similar to the clinical presentation of DLE, but there were no other cutaneous lesions and a negative lab investigation for antinuclear antibody was seen. Further, as the patient was already taking steroidal medication both topically and systemically immunofluorescence testing would not yield any kind of results, so it was not done. DLE of the lip has been associated with malignancy and there are reports of actinic lichen planus and actinic cheilitis [8,20, 24] also turning into squamous cell carcinoma. Squamous cell carcinoma of the lips has higher

metastatic potential than cutaneous squamous cell carcinoma [25]. Several therapies have been tried with variable results for ALP, including bismuth, arsenic compounds, and topical corticosteroid preparations. Treatment with antimalarial agents or intralesional corticosteroids combined with sunscreens has shown good results with prolonged remission [14, 15].

CONCLUSION:

As in the present case, diagnosis of lesions of lip would pose a diagnostic challenge to the practitioners when they do not occur in their characteristic form, however differential diagnosis of these lesions are important.

Since lesions present in prominent areas of the face are highly susceptible to actinic changes and undergoing malignant transformation, their treatment should be done aggressively not only to prevent morbidity and mortality, but also to maintain patients' social acceptance and self-esteem.

REFERENCES:

1. Janna M. B, Benjamin B, Gilles J. L. Paying more than lip service to lip lesions. *Can Fam Physician* 2003;49:1111-1116
2. Sousa F, Rosa L. Oral lichen planus: clinical and histopathological considerations. *Rev Bras Otorrinolaringol* 2008; 74: 284-92.
3. Persic S, Mihic LL, Budimir J, Situm M, Bulat V. Oral lesions in patients with lichen planus. *Acta Clin Croat* 2008; 47: 91-96.
4. Lodi G, Scully C, Carrozzo M, Griffiths M, Sugerman PB, Thongprasom K. Current controversies in oral lichen planus: Report of an international consensus meeting. Part 2. Clinical management and malignant transformation. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 2005; 100:164-78.
5. Eisen D. The Therapy of Oral Lichen Planus. *Crit. Rev. Oral Biol. Med.* 1993; 4: 141-158.
6. Denguezli M, Nouira R, Jomaa B. Actinic lichen planus. An anatomical - clinical study of 10 Tunisian cases. *Ann Dermatol Venereol.* 1994; 121:543-6.
7. Bouassida S, Boudaya S, Turki H, et al. Actinic lichen planus: 32 cases. *Ann Dermatol Venereol.* 1998; 125:408-13.
8. Khalifa E. Sharquie, Adil A. Al-Nuaimy, Nabeel O. Kadir. Squamous Cell Carcinoma Arising from Lichen Planus Actinicus of the Lower Lip. *Journal of the Saudi Society of Dermatology and Dermatologic Surgery.* 2008;12: 32-36
9. Salman SM, Kibbi AG, Zaynoun S. Actinic lichen planus. *J Am Acad Dermatol* 1989; 20:226-231.

10. Salman SM, Khallouf R, Zaynoun S. Actinic lichen planus mimicking melasma. *J Am Acad Dermatol* 1988;18:275-278
11. Isaacson D, Turner ML, Elgart ML. Summertime actinic lichenoid eruption (lichen planus actinicus). *J Am Acad Dermatol* 1981;4:404-411
12. Peretz E, Grunwald MH, Halevy S. Annular plaque on the face. Actinic lichen planus (ALP). *Arch Dermatol*.1999; 135(1543):1546.
13. Al-Fouzan AS, Hassab-el-Naby HM. Melasma-like (pigmented) actinic lichen planus. *Int J Dermatol*.1992; 31:413–5.
14. Meads SB, Kunishige J, Ramos-Caro FA, Hassanein AM. Lichen planus actinicus. *Cutis*. 2003; 72:377–81.
15. Kim GH, Mikkilineni R. Lichen planus actinicus. *Dermatol Online J*. 2007 Jan 27;13(1):13
16. Callen JP. Oral manifestations of collagen vascular disease. *Semin Cut Med Surg* 1997; 16: 323-7
17. Burge SM, Frith PA, Juniper RP, Wojnarowska F. Mucosal involvement in systemic and chronic cutaneous lupus erythematosus. *Br J Dermatol* 1989; 121: 727-41.
18. Orteu CH, Buchanan JAG, Hutchison I, Leigh IM, Bull RH. Systemic lupus erythematosus presenting with oral mucosal lesions: easily missed? *Br J Dermatol* 2001; 144: 1219-23.
19. Girard KR, Hoffman BL. Actinic cheilitis. Report of a case. *Oral Surg Oral Med Oral Pathol* 1980; 50:21-4.
20. Moy RL. Clinical presentation of actinic keratoses and squamous cell carcinoma. *J Am Acad Dermatol* 2000; 42:8-10.
21. Kaugars GE, Pillion T, Svirsky JA, Page DG, Burns JC, Abbey LM. Actinic cheilitis: a review of 152 cases. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 1999; 88: 181-86.
22. Huff JC, Weston WL, Tonnesen MG (1983). Erythema multiforme: a critical review of characteristics, diagnostic criteria, and causes. *J Am Acad Dermatol* 8: 763–775.
23. P Farthing, J-V Bagan, C Scully. Erythema multiforme. *Oral Diseases*, 2005;11: 261–267
24. N.W. Savage, V. Vucicevic Boras, Z. Mohamad Zaini. Oral squamous cell carcinoma with discoid lupus erythematosus. *Oral Oncology Extra*, 2006; 42:32–35.
25. Goldman GD: SC cancer: a practical approach. *Semin Cutan Med Surg* 1998; 17:80-95.