Case Report

International Journal of Dental and Health Sciences
Volume 01, Issue 06

UNILATERAL ISOLATED ORAL LICHEN PLANUS: A CASE REPORT

Neha Khurana[1],Himanshu Shrivastava[2],Naveen Kumar[3], Nidhi Shah[4]

1. Dept.Oral & Maxillofacial Pathology, K.M Shah Dental College & Hospital, Vadodara
2. Dept.Oral & Maxillofacial Pathology, K.M Shah Dental College & Hospital, Vadodara
3. Dept.Oral & Maxillofacial Pathology, Dr.R.Ahmad Dental College & Hospital, Kolkata
4. Dept.Oral & Maxillofacial Pathology, K.M Shah Dental College & Hospital, Vadodara

ABSTRACT:

Oral Lichen planus (OLP) is a common mucocutaneous disorder affecting 0.5 to 2% of the population. The most common clinical presentations of the disorder are the reticular and erosive forms. Reticular type of OLP presents as a bilateral symmetrical lesion, commonly involving the buccal mucosa. Lesions isolated to a single oral site other than the gingiva is very uncommon.We report a rare case of unilateral OLP which was clinically diagnosed as Lichenoid Reaction(LR), but in the absence of any cause-effective relationship biopsy was taken for histopathological examination which confirmed the diagnosis of OLP.

Keywords: Oral Lichen Planus, Lichenoid Reaction, Reticular type LP, Plaque type LP

INTRODUCTION:

Lichen planus is a chronic inflammatory mucocutaneous disease which frequently involves the oral mucosa. About half of the patients with cutaneous lesions have oral lesions, whereas about 25% present with oral lesions alone may be referred to as “isolated” OLP.[1-3] This disease has most often been reported in middle-aged patients 30-60 years of age and is more common in females than in males.[4]

The lesion was first described by Wilson in 1869.[5] Six distinct clinical forms of OLP were described by Andreason including Reticular, Papular, Plaque, Atrophic, Erosive and Bullous.[6]

The most common types are reticular and erosive.[7] The reticular form presents as interlacing white keratotic lines, known as Wickham’s striae with an erythematous border. The striae typically located bilaterally on the buccal mucosa, mucobuccal fold, gingiva and less commonly, the tongue, palate and lips.

A variant of reticular OLP is the plaque-like form, which clinically resembles leukoplakia but which has a multifocal distribution. These plaque-like lesions can range in presentation from smooth, flat areas to irregular, elevated areas. This variant is commonly found on the dorsum of the tongue and on the buccal mucosa.[8]

OLP presents as a bilateral symmetrical lesion and lesions isolated to a single oral site other than the gingiva is very uncommon.[9] We report a rare case of

*Corresponding Author Address: Dr.Himanshu Shrivastava, Dept.Oral & Maxillofacial Pathology, K.M Shah Dental College & Hospital Vadodara Email: himanshu.srivastava97@gmail.com

unilateral plaque type OLP which was initially misdiagnosed as LR due to its unilateral distribution and later confirmed to OLP based on the absence of any of the causative agent for LR and histopathology.

CASE DETAIL:

A 52 year old female patient reported to dental hospital with chief complaint of burning sensation in mouth since past 2 months. Patient did not give any history of tobacco consumption. Also, patient did not provide any drug history and she did not go through any dental procedure till date.

Intra oral examination revealed grayish white non scrapable patch extending from right commisure of the lip upto the middle third of the right buccal mucosa. The left buccal mucosa as well as other sites of the oral cavity appeared normal. A provisional diagnosis of lichenoid reaction was given based on the unilateral distribution of the lesion. However, due to the absence of any underlying causative factor commonly implicated for LR, a definitive diagnosis could not be rendered and biopsy specimen was send for histopathological evaluation.

On general examination of the patient, no other lesion could be detected on any other part of the body.

One bit of soft tissue specimen was received measuring about 0.7 X 0.5 X 0.2 cm in size. It was roughly oval in shape and brownish yellow in color. The tissue was soft in consistency with smooth surface and regular border.

Histopathological examination revealed parakeratinized stratified squamous epithelium along with underlying connective tissue stroma. The epithelium was atrophic showing absence of rete pegs. Focal areas of the epithelium also showed degeneration of basal cells. A band of juxta epithelial inflammatory cell infiltrate was evident, chiefly comprising of lymphocytes and plasma cells. The connective was comprised of loosely arranged collagen bundles, along with adipose tissue and muscles fibre. Few blood vessels could also be seen. Based on these histopathological findings, diagnosis of Unilateral Isolated Oral Lichen Planus was given.

DISCUSSION:

OLP is a chronic inflammatory oral mucosal disorder of unknown etiology. The underlying pathogenesis is believed to be an abnormal T-cell-mediated immune response in which basal epithelial cells are recognized as foreign because of changes in the antigenicity of their cell surface.[10] OLP may present as white striations, papules or plaques, erythema, erosions, or blisters affecting predominantly the buccal mucosa, tongue, and gingiva. The term OLP defines those lesions where no trigger can be identified and are hence “idiopathic”.

The classic histopathological features of OLP include liquefaction of the basal cell layer accompanied by apoptosis of the keratinocytes, a dense band-like lymphocytic infiltrate at the interface between the epithelium and the connective tissue, focal areas of hyper

keratinized epithelium and occasional areas of atrophic epithelium. Eosinophilic colloid bodies (Cavite bodies), which represent degenerating keratinocytes, are often visible in the lower half of the surface epithelium.[8]

LR appears similar to OLP clinically, although it can be distinguished from OLP due to their association with a variety of different systemic as well as topical etiological agents and their tendency to be localized and asymmetrically distributed.[11]. Histopathologically, the two lesions can be distinguished by the presence of a mixed sub epithelial infiltrate, in contrast to the strict lympho-histocytic infiltrate that defines OLP, and a deeper more diffuse distribution within the lamina propria and superficial submucosa is as marker of a drug related lichenin oral lesion. Focal parakeratosis, focal interruption of the granular layer, cytoid bodies in the cornified and granular layers are perhaps indicative of a lichenin drug related lesion [12,13]

LR may be a result of reaction to contact with restorative materials such as Resin [14] or Amalgam [15-19], orthodontic wires [20]. Substantial literature exists documenting the role of certain drugs in triggering LR including non steroidal anti-inflammatory drugs such as fenclofenac, fenilbutazone, and salsalate [21], antihypertensive drugs, especially methyldopa, propranolol, practolol, oxprenolol, and amlodipine , antimalarial drugs quinine and quinidine.[22] antimicrobial drugs, mainly penicillin, tetracycline, cyclosporine, prednisolone, indomethacin, and pyridoxine and ketoconazole.[23] LR has also been linked to flavouring agents present in various foods and dentrifices such as cinnamon [24-25], menthol oil and peppermint [26]

In the presented case, a 52-year-old female patient came with the chief complaint of burning sensation in mouth since past two months. Oral examination revealed greyish white non scrappable patch localized to the right buccal mucosa. General examination revealed that patient was devoid of any cutaneous or other mucosal lesions. She was not taking any medication and did not go through any dental treatment. Hence, taking into account the absence of a cause-effect relationship and based on the typical histopathological features, the final diagnosis of Unilateral Isolated Oral Lichen Planus was established.

CONCLUSION:

The present case report highlights the importance of a careful clinical examination and recording a detail case history including dietary habits, routine or occasional use of drugs, and oral hygiene to establish the cause- effect relationship associated with LR and the integration of the clinician and the oral pathologist to establish a definite diagnosis. This is because the treatments for both pathologies are distinct and considering that OLP should be more carefully followed due to the possibility of malignant transformation, the definitive diagnosis should be established as early as possible.

REFERENCES:

1. Al-Hashimi I, Schifter M, Lockhart PB, Wray D, Brennan M, Migliorati CA, et al. Oral lichen planus and oral lichenoid lesions: diagnostic and therapeutic considerations. Oral Surge Oral Med Oral Pathos Oral Radial Ended 2007; 103 Suppl:S25.e1-12.
2. Andresen JO. Oral lichen planus. 1. A clinical evaluation of 115 cases. Oral Surge Oral Med Oral Pathol.1968;25:31–42.
3. Scully C, el-Kim M. Lichen planus: Review and update on pathogenesis. J Oral Pathos. 1985;14:431–58.
4. Superman PB, Savage NW, Walsh LJ, Zhao ZZ, Zhou XJ, Khan A, et al. The pathogenesis of oral lichen planus. Crib Rev Oral Boil Med 2002; 13:350-65
5. Wilson E. On lichen planus. J Cut an Med Dies Skin 1869; 3:117-132.
6. Andresen JO. Oral lichen planus. 1. A clinical evaluation of 115 cases. Oral Surge Oral Med Oral Pathos 1968; 25:31-42.
7. Mollaoglu N. Oral lichen planus: a review. Brit J Oral MaxillofacialSurg 2000; 38(4):370-7.
8. Paul C. Edwards Robert Kelsch Oral Lichen Planus: Clinical Presentation and Management J Can Dent Assoc 2002; 68(8):494-9.
9. Manas Bajpai, Deshant Agarwal, Anindya Bhalla,et al. Unilateral lichen planus: A rare case report. J Nat Sci Biol Med. 2014 Jul-Dec; 5(2): 453–455.
10. Sapp JP, Eversole LR, Wysocki GP. Contemporary oral and maxillofacial pathology. St. Louis (MI): Mosby; 1997
11. Rogers RS, 3rd, Bruce AJ. Lichenoid contact stomatitis: Is organic mercury the culprit? Arch Dermatol.2004;140:1524–5
12. Savage NW. Oral lichenin drug eruptions. Oral Dis 1997;3:55-7.
13. Van den Haute V, Antoine JL, Lachapelle JM. Histopathological discriminant criteria between lichenoid drug eruption and idiopathic lichen planus: retrospective study on selected samples. Dermatologica.1989;179:10-3.
14. Blongren J, Axéll T, Sandahl O, Jontell M. Adverse reactions in the oral mucosa associated with anterior composite restorations. J Oral Pathol Med 1996;25:311-3.
15. Laine J, Konttinen YT, Beliaev N, Happonen RP. Immunocompetent cells in amalgam-associated oral lichenin contact lesions. J Oral Pathos Med 1999;28:117-21.
16. Laine J, Kalimo K, Happonen RP. Contact allergy to dental restorative materials in patients with oral lichenoid lesions.

Contact Dermatitis 1997;36:141-6.

17. Östman PO, Anneroth G, Skoglund A. Oral lichen planus lesions in contact with amalgam fillings: A clinical histological and immunohistochemical study. Scand J Dent Res1994;102:172-9.
18. Östman PO, Anneroth G, Skoglund A. Amalgam-associated oral lichenoid reactions. Clinical and histologic changes after removal of amalgam fillings. Oral Surg Oral MedOral Pathol Oral Radiol Endod 1996;81:459-65.
19. Stenman E, Bergman M. Hypersensitivity reactions to dental materials in a referred group of patients. Scand J Dent Res 1989;97:76-83
20. Dunlap CL, Vincent SK, Barker BF. Allergic reaction to orthodontic wire: Reporte a case. J Am Dent Assoc 1989;118:449-50
21. Powell ML, Ehrlich A, Belsito DV. Lichenoid drug eruption to salsalate. J Am Acad Dermatol 2001;45:616-9
22. Swale VJ, Mcgregor J M. Amlodipine-associated lichen planus. Br J Dermatol 2001;144;920-1.
23. Halevy S, Shai A. Lichenoid drug eruptions. J Am Acad Dermatol 1993;29:249-55.
24. Menni S, Barbareschi M, Fargetti G, Hendrickx I. [Lichenoid eruptions of the mouth mucosa induced by lithium carbonate. 2 cases] Ann Dermatol Venereol 1995;122:91-3.
25. Miller RL, Gould AR, Bernstein ML. Cinnamon-induced stomatitis venenata, Clinical and characteristic histopathologic features. Oral Surg Oral Med Oral Pathol 1992;73:708-
26. Morton CA, Garioch J, Todd P, Lamey PJ, Forsyth A. Contact sensitivity to menthol and peppermint in patients with intra-oral symptoms. Contact Dermatitis 1995;32:281-4.

FIGURES:

Figure-1 showing extra oral photograph of patient

Figure-2 showing non scrapable white lesion on right buccal mucosa

Figure-3 showing normal left

Figure-4 showing intra operative view while taking incisional biopsy

Figure-5 showing post operative view after taking incisional biopsy

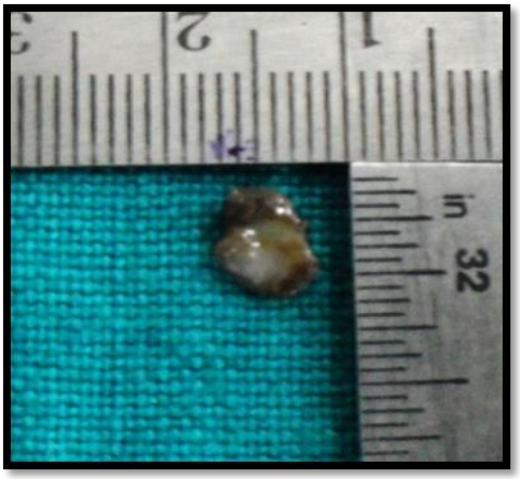

Figure-6 showing grossing photograph of biopsy specimen

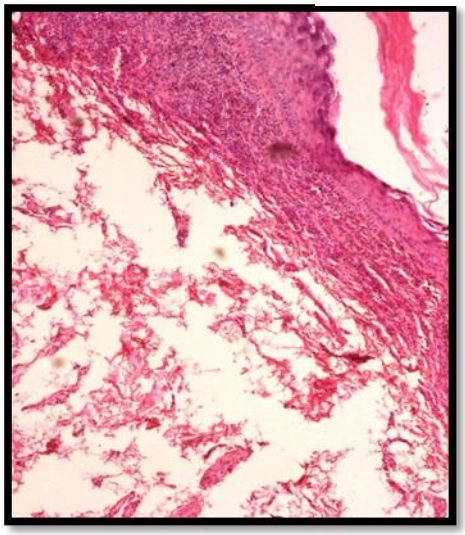

Figure-7 Showing atrophic epithelium along with underlying connective tissue stroma

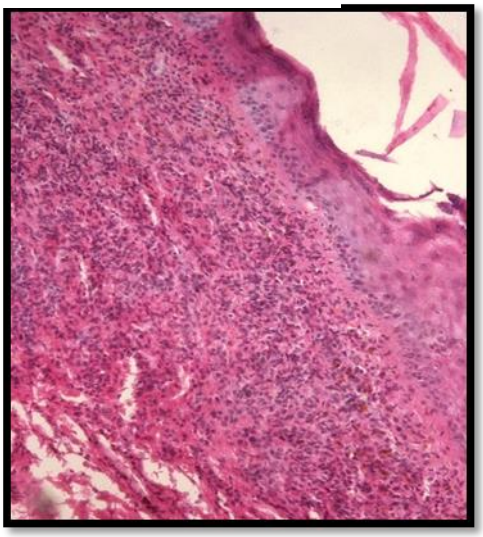

Figure-8 Showing band of juxta epithelial inflammatory cell infiltrate