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CASE REPORT

EROSIVE VARIANT OF ORAL LICHEN PLANUS – A CASE REPORT

***Anoop Kurian Mathew, **Prashanth Shenai, **Laxmikanth Chatra, **Prasanna Kumar Rao and
Rachana V Prabhu

*Indira Gandhi Institute of Dental Sciences, Indira Nagar, Nellikuzhy P.O, Kothamangalam, Ernakulam District, Kerala, India.

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

Correspondence Author: Dr. Anoop Kurian Mathew; Email: drakm86@yahoo.com.

Running title: Erosive Lichen Planus

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ABSTRACT:

Lichen planus (LP) is a chronic mucocutaneous disorder in which auto-cytotoxic T lymphocytes trigger apoptosis of epithelial cells leading to chronic inflammation. Oral Lichen Planus (OLP) is a disease which has a slight malignant potency. The diagnosis of OLP can be made from the clinical features if they are sufficiently characterized, but biopsy is recommended to confirm the diagnosis and to exclude dysplasia and malignancy. This is a case report of erosive lichen planus in a female patient, aged 45 years.

Keywords: Lichen planus, Oral, dysplasia

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INTRODUCTION:

Oral Lichen planus (OLP) is a common immunologic mucocutaneous inflammatory disease that varies in appearance from keratotic to erythematous and ulcerative. It affects 0.5% to 1% of the world's population.

Approximately half of the patients with cutaneous lichen planus have oral involvement [1]. The mean age of onset is the fifth decade of life, and is more predominant in females [2]. This article is a case report of erosive lichen planus located in the buccal mucosa of a 45 year old female patient. The diagnostic

approach, clinical feature and various treatment modalities are presented below.

CASE REPORT:

A 45 year old female patient reported with chief complaint of burning sensation over her right cheek region. She gave a history of burning sensation since 6 months that usually aggravates upon consumption of spicy and hot substances. She underwent no medications for the same.

On visual analog scale (VAS) rating scale, patient reported burning sensation of 6. She also reported difficulty in mastication due to burning because of which her consumption of food was minimal. She had a habit of using snuff since 2 years with a frequency of 2-3 times per day. Extra oral examination revealed no abnormality.

On intra oral examination of the patient, the right buccal mucosa revealed diffuse erythematous areas interspersed with whitish lace like striae (Fig. 1) measuring approximating 1.5cm in diameter with irregular borders around. The lesion extends anteriorly 1.5cm from the right corner of mouth, posteriorly 2.0cm from the retro molar region, superiorly 0.5 cm above the occlusal plane and inferiorly 1.0 cm above the lower buccal vestibule. Surface appeared to be smooth and

glossy with no signs of bleeding. The lesion on palpation was tender (Visual Analog Scale 6), and non scrapable. The left buccal mucosa showed lace like whitish striae near the corner of the mouth.

As a chair side investigation Toluidine blue staining on right buccal mucosa (Fig. 2) was done.

Based on the history given by the patient and the clinical examination carried out, a provisional diagnosis of Erosive lichen planus on right buccal mucosa was made.

Incisional biopsy was taken from the lesion under local anesthesia, and the specimen was sent for histopathological examination. Histopathologic picture showed hyperparakeratotic, atrophic stratified squamous epithelium exhibiting basal cell degeneration in some areas. Sub epithelial connective tissue was densely infiltrated with inflammatory cells, predominantly lymphocytes (Fig. 3).

Final diagnosis of lichen planus was made. The patient was asked to apply triamcnenolone acetonide 0.1% ointment over the lesion three times a day for 3 weeks. Patient reported back after 3 weeks with regression in the size of the lesion. The patient was also advised to discontinue the use of snuff.



Figure 1: right buccal mucosa showing erythema with striae and sparse pigmentation



Figure 2: Toluidine blue staining on right buccal mucosa

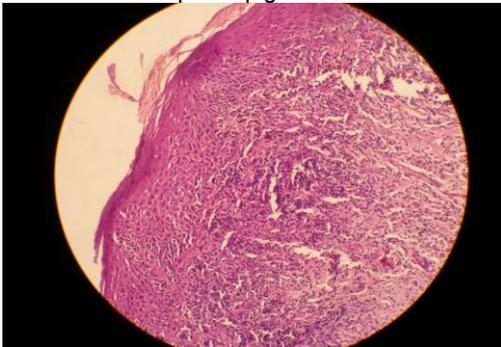


Figure 3: Histopathologic picture

DISCUSSION:

OLP is a chronic inflammatory oral mucosal disease of unknown etiology. It is a benign condition that affects both the skin and the mucosa. Erosive lichen planus, although not as common as reticular form, it is significant for the patient since it is symptomatic. It is characterized by the presence of vesicles, bullae or irregular shallow ulcers of the oral mucosa [2]. The periphery of the atrophic regions is usually bordered by fine, white radiating striae [3]. Atrophic lesions and erosions are the forms most likely to cause

pain. The most frequently affected sites are the buccal mucosa, tongue and the gingival [4]. Approximately 10 % of cases of oral lichen planus are confined to gingiva. It has been reported that most cases of erosive lichen planus may be associated with desquamative gingivitis [2]. Regarding the malignant potential rate of erosive lichen planus, previous studies have reported that it has a significant high risk of malignant transformation to squamous cell carcinoma [5]. Erosive lichen planus has the higher rate of malignant potency when compared to other types of oral lichen planus. It

has been suggested earlier, the association of lichen planus with viral lesions that lichen planus may be triggered by hepatitis c virus (HCV) infection.

HC virus mainly affects the keratinocytes in lichen planus lesions. The association of erosive lichen planus and HCV infection depends on geographic factors because of its varied incidence. So serology for HCV should be made in suspected lesions, especially those with erosive variants [6].

It has been reported that less than 5% of OLP patients develop oral cancer, most frequently in erosive and atrophic type the cause of increased oral cancer risk is unknown but the chronic inflammatory and epithelial wound healing response in these patients may increase the likelihood of oral cancer forming gene mutations [7].

Diagnosis: Erosive lichen planus should be suspected when typical lichenoid white lesions accompanies erosive lesions. Biopsy of erosive lesion is mandatory to confirm the clinical diagnosis and particularly to exclude dysplasia and malignancy.

Management: The main aim of treatment of oral lichen planus is to eliminate mucosal erythema and ulceration, alleviate symptoms and reduce the risk of oral cancer in OLP patients. The treatment mainly depends on the

symptoms, extent of the lesion, medical history and other factors. A patient with reticular forms and other asymptomatic forms of lichen planus does not usually require treatment. Symptomatic lesions require treatment and this mainly depends on their severity which can be divided into 3 steps – primary, secondary and tertiary line of treatment [8]. Mild to moderate symptomatic cases are given primary line of treatment.

Triamcinalone acetonide 0.1% cream or Fluocinonide 0.05% gel or Dexamethazone 0.5mg/5ml in orabase are given topically [6]. Ecksrdt et al in their study has mentioned that erosive lichen planus can be very effectively treated by topically applied tacrolimus and results in rapid symptom relief [9]. Lesions that do not respond to topical therapy are given secondary line of treatment which involves corticosteroid injections.

Mostly given are 0.2 to 0.4ml Triamcinalone acetonide or Systemic Prednisolone 40 to 80 mg daily that are sufficient to achieve a response [8]. Due to drug toxicity it is mostly given in lowest dose. Systemic Prednisolone should be taken either for brief periods of time, (5–7 days) and the dose should be reduced by 5–10 mg/day gradually over 2–4 weeks [8].

On the other hand more severe cases are given tertiary line of treatment. These cases do not respond to short term prednisolone. More protracted course of Prednisolone should be

given [10]. Immunosuppressant such as Azathioprine 50 to 100mg / day, cyclosporine 50mg should be prescribed, so as to minimize the side effects of corticosteroids in the treatment of oral lichen planus [11].

CONCLUSION:

Oral lichen planus is an immunologically mediated chronic disease that has characteristic clinical appearance. Erosive lichen planus is one form of oral lichen planus in which malignant potential rate is on the higher side. Thus it is necessary to identify the lesion clinically and histopathologically and treat the condition at the earliest. Prior informed consent was obtained from the patient before the lesional approach.

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