CASE REPORT

Erosive lichen planus: A case report

Lakshmi Balraj1, Tejavathi Nagaraj1, Haritma Nigam1, Sida Tagore2

1Department of Oral Medicine and Radiology, Sri Rajiv Gandhi College of Dental Sciences & Hospital, Bengaluru, Karnataka, India, 2Department of General Pathology, Sri Rajiv Gandhi College of Dental Sciences & Hospital, Bengaluru, Karnataka, India

Keywords
Erosive lichen planus, topical corticosteroids, triamcinolone acetonide

Correspondence:
Dr. Lakshmi Balraj, Department of Oral Medicine and Radiology, Sri Rajiv Gandhi College of Dental Sciences & Hospital, Cholanagar, Bengaluru - 560 032, Karnataka, India. Phone: +91-9742504911. E-mail: lakshmi.balraj@gmail.com

Received: 22 December 2016
Accepted: 28 January 2017
doi: 10.15713/ins.jmrps.82

Introduction

Lichen planus (LP) is a chronic inflammatory autoimmune mucocutaneous disease affecting about 2% of the population.[1] Classic LP typically presents as pruritic, polygonal, purplish papules, and plaques (described using the 6 Ps); many variants in morphology and location also exist, including oral, nail, linear, annular, erosive, atrophic, hypertrophic, inverse, eruptive, bullous, ulcerative, LP pigmentosus, lichen planopilaris, vulvovaginal, actinic, LP-lupus erythematosus overlap syndrome, and LP pemphigoides.[2]

The sites involved over the skin include the flexor surfaces of the legs and arms, especially the wrists and elbows. The nail beds may also be affected with resultant ridging, grooving, pterygium, onychorrhexis, and complete loss of the nail. Involvement of the scalp involvement if ignored and left untreated can lead to scarring and alopecia. In a dental setting, cutaneous LP is observed in about one-third of the patients diagnosed with oral LP (OLP). In contrast, two-thirds of patients seen in dermatologic clinics exhibit OLP.[3]

The erosive form is the second most common type of OLP. Variants of the erosive form include atrophic and bullous forms. It clinically manifests as a mixture of erythematous and ulcerated areas bounded by finely radiating keratotic striae. Unlike the keratotic variants such as reticular and plaque-type lesion, erosive OLP (EOLP) presents with symptoms ranging from intermittent mild pain to severe discomfort and carries an increased risk of malignant transformation. Hence, it is an important for all clinicians to be aware of the clinical presentations and provide prompt palliation to the erosive forms affecting the oral cavity.[4]

This article presents a long-standing case of an erosive form of LP affecting a middle-aged female in her 7th decade of life.

Case Report

A 78-year-old female patient had reported to the Department of Oral Medicine and Radiology with a chief complaint of burning sensation of the entire oral cavity that started almost 1 year back which was insidious in onset and moderates in nature and aggravated on having spicy food. Dental history revealed that she has had uneventful extractions and prosthetic fabrications.

The patient gave a medical history of being hypertensive and taking medications for same since 12 years. Personal history revealed that she had a mixed diet and had no deleterious habits whatsoever. At the time of consultation, she was under considerable stress due to some family related issues.

Extraorally, there was no gross changes or abnormalities detected [Figure 1]. On intraoral examination, there was the
presence of two discrete plaques on the left buccal mucosa which was surrounded by erythematous erosive areas approximately of size 2.5 cm × 3 cm, opposite premolar–molar region. These erythematous areas were further bounded by straight sharp angular abruptly ending whitish striae [Figure 2]. The right buccal mucosa exhibited faint grayish white striae arranged in an annular lacy pattern with mild melanin pigmentation at the periphery [Figure 3]. Certain erosive erythematous areas were observed over the edentulous posterior regions of the crest of maxillary alveolar ridge. All the inspection findings were confirmed on palpation during which the lesions on both sides were found to be non-scrapable and also mildly tender over the left buccal mucosa. Considering the clinical presentation and other related clinical history findings, the case was provisionally diagnosed as erosive LP. Differential diagnoses considered for this case included lupus erythematosus, pemphigus vulgaris, and atrophic candidiasis.

The patient was convinced to undergo incisional biopsy, before which all routine blood investigations were done. Fasting blood sugar and the blood pressure were found to be within the normal limits. Subsequent histopathological examination revealed areas of epithelial atrophy and basal cell degeneration with the presence of a dense subepithelial band of chronic inflammatory cell infiltration. All these features were consistent with that of an erosive LP, thereby confirming our provisional diagnosis.

The patient was put on a course of topical corticosteroid therapy of 0.1% triamcinolone acetonide oral paste (available as “kenacort” commercially) for 3 months. The patient was advised to apply the paste locally over lesional areas 3 times daily after meals and was recalled after 7 days. During the recall visit, there was considerable remission of the lesion and in the symptoms as well. She was educated about the chronicity and recurrence of the disease entity which warrants the need for regular follow-up and was counseled for stress management.

**Discussion**

OLP is a chronic autoimmune mucocutaneous disease primarily affecting primarily middle-aged women. An abnormal T-cell mediated immune response is the main underlying factor which results in basal epithelial cells to be recognized as foreign bodies due to changes in the antigenicity of their cell surface. However, the cause of this immune-mediated damage of basal cell layer is still not known.[1]

The etiology of OLP appears to be multifactorial and complicated. Ismail et al.[5] reported a list of exacerbating factors for OLP and OLP reactions such as stress, drugs (antimalarial, diuretics, gold salts, antiretroviral, beta blockers, and penicillamine), certain dental materials (dental amalgam, composite and resin-based materials, and metals), chronic liver disease and hepatitis C virus, genetics and tobacco chewing. Systemic diseases seen associated with OLP includes diabetes mellitus, hypertension, ulcerative colitis, myasthenia gravis, diabetes mellitus, hypertension, ulcerative colitis, myasthenia gravis,
lupus erythematosus, etc. In the present case, stress seems to be a possible aggravating factor besides the patient being a hypertensive and taking medications for same.

Although there are several clinical forms of OLP (reticular, patch, erosive, and bullous), the most common are the reticular and erosive forms. Oral lesions are more common than skin lesions, and in few cases, the former precedes the latter. The present case, however, had only oral changes and was devoid of any dermatologic manifestations.

In OLP, reticular and atrophic lesions usually tend to develop within all erosive lesions unlike other vesiculo-erosive diseases such as pemphigus and pemphigoid. The latter occur as solitary erythematous lesions which are not usually associated with any white striae and pathognomonic feature being Nikolsky’s positive. This can aid in clinical differential diagnosis since erosive and atrophic forms of OLP usually show concomitant reticular form.

Discoid lupus erythematosus lesions show straight sharp abrupt ending of striae due to which it was also considered as a differential diagnosis. However, its higher predilection to women of the 3-4th decade and the absence of the characteristic “butterfly rash” helped us to exclude the same from diagnosis. Certain cases of bullous OLP may mimic lesions of erythema multiforme, but the latter has a more acute clinical course and extensively involves the labial mucosa.

Erosive form of OLP has the highest malignant transformation rate when compared to the other variants. Literature with evidence of previously published studies concluded that the risk of developing squamous cell carcinoma in patients with OLP is approximately 10 times higher than that in the unaffected general population. Therefore, clinicians should closely observe such suspicious lesions and confirmed the diagnosis histopathologically at the earliest.

Topical or systemic corticosteroid is the mainstay of the treatment for mild to moderate symptomatic lesions of OLP, and it functions by modulating the patient’s immune response. This is done primarily by suppressing the T-cell activity. Following are the common topical formulations listed according to decreasing potency:

1. 0.05% clobetasol propionate gel
2. 0.1% or 0.05% betamethasone gel
3. 0.05% fluocinonide gel
4. 0.1% triamcinolone acetonide ointment

Intralesional injection of corticosteroid is reserved for recalcitrant or extensive lesions administered as subcutaneous injection of 0.2-0.4 mL of a 10 mg/mL solution of triamcinolone acetonide by means of a 1.0 mL 23- or 25-gauge syringe. Systemic steroid therapy should be reserved for patients who are recalcitrant to topical steroid management. Conditions were steroids should be used with caution include viral infections including HIV, pregnancy, hypertension, and diabetes mellitus.

Other treatment modalities include pharmacotherapy by immunomodulators chloroquine, immunosuppressants such as tacrolimus, newer drugs such as azathioprine, mycophenolate mofetil, psoralen and ultraviolet A therapy, and CO2 LASER.

Conclusion
Numerous controversies surrounding OLP should be restricted purely at academic levels; but as far as clinical practice is concerned, the chances of EOLP to develop into squamous cell carcinoma (0.4-5%) justifies the need for immediate investigatory procedures followed by the earliest institution of appropriate treatment with a long-term monitoring of such patients. Furthermore, strategic care should be taken when counseling and educating such patients about this chronic disease and its clinical course, so as to avoid the build-up of excessive stress that would only worsen the clinical picture.

Clinical significance
Classic OLP is more frequently encountered in private dental clinics than its other variants. The rarity of the variants and their atypical presentations make their timely diagnosis and management more difficult in the clinical setting. Oral lesions are chronic, rarely undergo spontaneous remission; furthermore, erosive oral lesions are difficult to palliate and can persist for 15-20 years.

This case report reviews the clinical approach to an erosive variant of OLP; wherein, the patient was educated, counseled about the chronicity of the condition and also about its high risk of malignant transformation; immediate biopsy being prompted; followed by the institution of appropriate, timely treatment.

References
11. Lanfranchi-Tizeira H, Aguas SC, Sano SN. Malignant