**Sanjana Mathew, MBBS** Department of Dermatology, St John's Medical College,

Bangalore, India

Carol Lobo, MBBS, MD Department of Dermatology, St John's Medical College, Bangalore, India Meryl Antony, MBBS, MD Department of Dermatology, St John's Medical College, Bangalore, India

# Oral lichen planus



**Figure 1.** Well-defined violaceous plaque on the lower lip.

A 36-YEAR-OLD MALE PRESENTED with lesions over the lips and the left buccal mucosa for the past 6 months. The lesions were associated with pain and a burning sensation, aggravated by spicy foods. He had no history of skin disorders, local trauma, dental procedures, smoking, or alcohol consumption. He was not on any medications and had no history of drug reactions.

## WORKUP AND DIAGNOSIS

Clinical examination revealed a nonindurated, well-defined, violaceous plaque with a white, lacy appearance on the lower lip (Figure 1) and the left buccal mucosa (Figure 2). There was no involvement of the skin, nails, or genital mucosa.

The differential diagnoses included lichen planus, oral candidiasis, oral lichenoid reaction, and leukoplakia. Potassium hydroxide microscopic study of the lesions was negative for oral candidiasis. Biopsy study of the buccal mucosal lesions showed wedge-shaped hypergranulosis and a dermal, lichenoid, lymphocytic, inflammatory infiltrate, admixed with melanophages



**Figure 2.** Violaceous plaque with whitish lacy streaks in the left buccal mucosa.

(ie, macrophages containing melanin). Hepatitis C serology was nonreactive.

Based on the classical nonindurated reticular plaques with the pathognomonic Wickham striae, absence of a preceding drug-intake history, negative potassium hydroxide study, and histopathologic findings, a diagnosis of oral reticular lichen planus was made, and the patient was started on topical steroids, which brought improvement of the lesions.

# ORAL LICHENOID LESIONS

Lichen planus is a chronic immune-mediated inflammatory disorder affecting the skin, scalp, nails, and mucosa. Oral lichen planus involving the buccal mucosa, gingiva, and tongue affects 1% to 2% of the world's population. It is considered a multifactorial disease with risk factors including medications, dental materials, and viral infections such as hepatitis C.<sup>2</sup>

doi:10.3949/ccjm.90a.23048

Oral lichen planus classically presents as 6 types: reticular, atrophic, papular, bullous, plaque, and erosive-ulcerative. The reticular type is often asymptomatic, and the presence of interlacing white streaks suggestive of Wickham striae is pathognomonic.<sup>3</sup> The differential diagnoses for this type include candidiasis, leukoplakia, and lichenoid reactions.<sup>3</sup>

Oral candidiasis presents with whitish erythematous plaques on the buccal mucosa, tongue, or palate and can be confirmed by potassium hydroxide study, which was negative in our patient.

Leukoplakia is a premalignant condition that presents as whitish indurated plaques in the buccal mucosa. Diagnosis is usually based on the findings of squamous hyperplasia with or without dysplasia.

Oral lichenoid contact reactions typically involve the buccal mucosa and lateral borders of the tongue, with the lesions located adjacent to the offending allergen. The most common culprits are dental amalgam, dental acrylics, cobalt, and nickel.<sup>3</sup> Diagnosis is made by a positive patch test and improvement after discontinuation of the allergen.

Oral lichenoid drug reactions have been reported with medications such as nonsteroidal anti-inflammatory drugs, antihypertensives (angiotensin-converting enzyme inhibitors, beta-blockers, diuretics), penicillamine, antimalarials, sulfonylureas, gold salts, and antiretrovirals for human immunodeficiency virus.3 Resolution of lesions is noted on discontinuation of the drug.

#### REFERENCES

- 1. Pauly G, Kashyap R, Kini R, Rao P, Bhandarkar G. Reticular oral lichen planus: the intra-oral web—a case report. Gülhane Tıp Derg 2017; 59:28-31. doi:10.5455/gulhane.240846
- 2. Scully C, Eisen D, Carrozzo M. Management of oral lichen planus. Am J Clin Dermatol 2000: 1(5):287-306. doi:10.2165/00128071-200001050-00004

### TREATMENT OPTIONS

The primary goal of management is symptom relief. Nonpharmacologic measures include maintenance of oral hygiene, smoking cessation, alcohol avoidance, and dietary restrictions including spicy acidic foods, citrus fruits, crispy or salty foods, crusted bread, and caffeinated drinks.

Twice-daily application of topical corticosteroids in the form of orabase gel or mouth rinse over a period of 1 to 2 months is the preferred treatment for oral lichen planus. Commonly used steroids include triamcinolone acetonide 0.1% gel and clobetasol propionate 0.05%.

Intralesional injection of triamcinolone acetonide in concentrations of 10 to 20 mg/mL is helpful in persistent oral lichen planus.<sup>3</sup>

Systemic corticosteroids like methylprednisolone or prednisolone (1-1.5 mg/kg daily) may be indicated in patients unresponsive to topical steroids.3 Other medications such as topical calcineurin inhibitors, oral retinoids, hydroxychloroquine, mycophenolate mofetil, and oral and topical cyclosporine have also been used in the treatment of oral lichen planus.<sup>2</sup>

Oral lichen planus, especially the erosive type, is a potentially premalignant disorder with a higher risk of progression to squamous cell carcinoma and necessitates periodic follow-up.4

# DISCLOSURES

The authors report no relevant financial relationships which, in the context of their contributions, could be perceived as a potential conflict of interest.

- 3. Schlosser BJ. Lichen planus and lichenoid reactions of the oral mucosa. Dermatol Ther 2010; 23(3):251-267. doi:10.1111/j.1529-8019.2010.01322.x
- 4. Eisen D. The clinical features, malignant potential, and systemic associations of oral lichen planus: a study of 723 patients. J Am Acad Dermatol 2002; 46(2):207-214. doi:10.1067/mjd.2002.120452

..... Address: Carol Lobo, MBBS, MD, Department of Dermatology, St. John's Medical College, Sariapura Road, Bangalore 560034, India: carol.lobo@stiohns.in