Case Report

Ulcerated oral lichen planus of the lower lip, common disease with the uncommon presentation: A case series

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Abstract

Dermatologic diseases are often associated with oral manifestations and sometimes the oral lesions are the sole presenting features of the disease. Diagnosing a dermatologic disease based on its oral manifestations is a challenge, especially in the absence of associated cutaneous lesions. Lichen planus is a common dermatologic disease that affects the oral mucosa in the adult population. While some patients have concomitant oral and cutaneous lesions, the oral lesions are persistent and seen for years together even after the cutaneous lesions have healed. Herein, we present two cases of oral lichen planus seen as an ulcerated lesion on the lower lip which is an uncommon manifestation of this otherwise common disease.

Keywords: Dermatologic disease, oral lichen planus, striae of Wickham, ulcerated lip lesion

Introduction

Lichen planus (LP) is a chronic mucocutaneous disorder characterized by small, purplish, pruritic, polygonal papules on the extremities, genitals but spares the face.[1] Oral lichen planus (OLP) is a chronic mucocutaneous disease that affects the oral mucosa with a variety of clinical presentations. OLP has been designated as a potentially malignant disorder of the oral cavity with the erythematous and ulcerative varieties having the highest malignant potential.[2]. Herein, we present a series of two cases that present as ulcerated lip lesions. OLP affects about 0.1% to about 4% of the middle-aged population and has a definite female gender predilection.[3] It usually presents bilaterally on the buccal mucosa, dorsum of the tongue, and the gingiva as desquamative gingivitis on the attached gingiva.

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Case History

Case 1

A 50-year-old female patient reported to the hospital with the chief complaint of ulcers in the lower lip for the past 1 ½ years. On examination, two irregular ulcers were seen on the lower lip, with irregular margins, the floor of the ulcers covered with yellowish slough and crusts [Figure 1a]. The ulcers were tender on palpation and associated with a watery discharge. Intraorally on the buccal mucosa irregular white patches with interlacing striae were seen bilaterally [Figure 1b and c]. Grayish-black elevated patches are seen on the skin of the wrist of upper extremities [Figure 1d] and the left lower leg [Figure 1e].

An incisional biopsy was performed and histopathological examination showed parakeratinized stratified squamous epithelium with the subepithelial band of lymphocytic infiltrate with basal cell degeneration, suggestive of LP [Figure 2a and b].

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The patient was prescribed tacrolimus 0.1% topical cream with amlexanox 5% oral paste to be mixed and applied locally twice daily along with, antioxidants to be taken orally twice daily and levamisole 150 mg thrice a week for 3 months. The patient was reviewed after a week, [Figure 3a] after 2 weeks [Figure 3b], and then followed up after a month [Figure 3c] and again after 3 months showing complete healing and no sign of recurrence [Figure 3d].

Case 2

A 22-year-old female patient reported with ulceration in her lower lip. On examination, an irregular ulcer was seen involving the entire lower lip having well-defined edges and floor covered by the yellowish slough. Areas of crustation and bleeding were seen. Fine radiating white lines were seen in the periphery and the entire lesion was surrounded by a bluish-gray border with mild tenderness on palpation [Figure 4a]. Intraorally, on the buccal mucosa, a grayish patch was seen with radiating white striae bilaterally [Figure 4b and c]. Grayish-black irregular papules were seen on both the legs [Figure 4d].

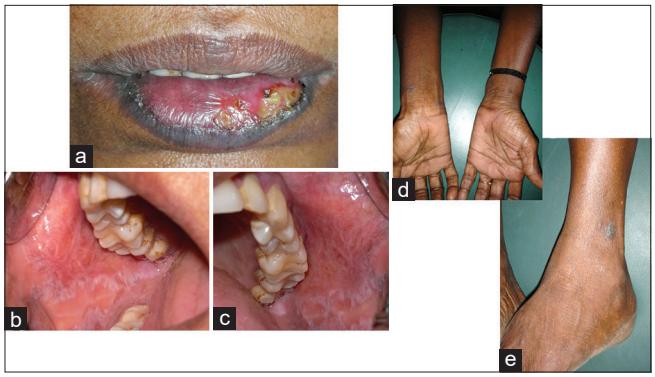

Figure 1: (a) Two irregular ulcers on the lower lip covered with crust and yellowish slough. Surrounding mucosa is erythematous with a grayish-black border. (b) Irregular white patches with interlacing white striae on the right buccal mucosa. (c) Irregular white patches with interlacing white striae on the left buccal mucosa. (d) Irregular grayish-black papular lesion on the left leg. (e) Irregular grayish-black papular lesion on the ventral surface of the wrists of both hands

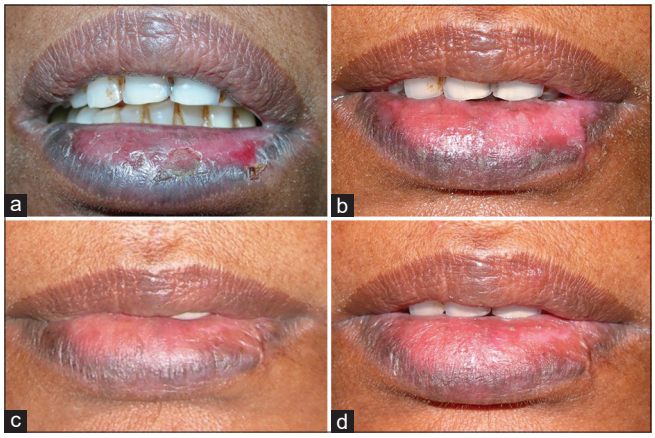

Figure 3: (a) Healing of ulcers with crusts on the lower lip after a week. (b) Completely healed ulcers after 2 weeks. (c) Complete healing without remission after a month. (d) Follow-up after 3 months shows no recurrence

An incisional biopsy was performed and histopathologic evaluation showed irregular acanthosis with hyperkeratosis, focal spongiosis with a subepithelial band of lymphocytic infiltrate, and marked vascular proliferation [Figure 5a and b].

The patient was prescribed tacrolimus 0.1% topical cream with amlexanox 5% oral paste to be mixed and applied locally twice daily along with, antioxidants to be taken orally twice daily and levamisole 150 mg thrice a week for 3 months. The patient was reviewed after a week, [Figure 6a] after 2 weeks [Figure 6b], and then followed up after a month [Figure 6c] showing complete healing and no sign of recurrence.

Discussion

LP is a common mucocutaneous disorder that was first described by Sir William James Erasmus Wilson in 1869 and it was histologically evaluated by Dubdreuilh in 1906. The pathogenesis of OLP is complex involving autocytotoxic CD8+ T cell-mediated apoptosis if the basal layer of the oral epithelium and the antigen may be an exogenous antigen or a self-antigen in a genetically susceptible individual.[4]

OLP presents as white striations, white plaques, erythema, erosions or vesicles affecting predominantly the buccal mucosae,

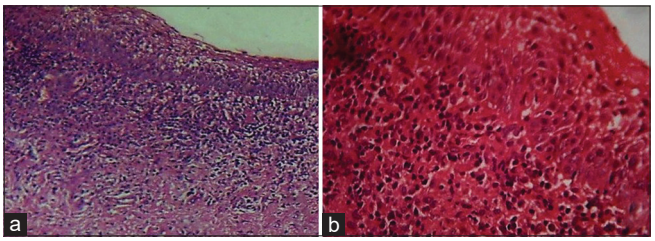

Figure 2: (a) H and E section show parakeratinized stratified squamous epithelium with the subepithelial band of lymphocytic infiltrate (10×). (b) H and E section basal cell degeneration (40×)

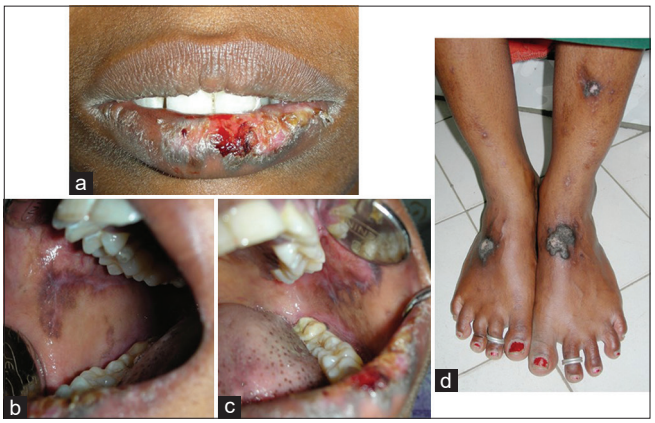

Figure 4: (a) An irregular ulcer on the entire lower lip, interspersed with erythema, hemorrhage, crusts, and yellowish slough. Fine radiating white striae are seen in the periphery with the entire lesion surrounded by a bluish-gray border. (b) Irregular grayish patches are seen on the right buccal mucosa interspersed with fine white striae. (c) Irregular grayish patches are seen on the left buccal mucosa interspersed with fine white striae. (d) Irregular grayish papules are seen on the both the legs

tongue and gingivae, although other sites like lips, the floor of the mouth and palate may also be involved. The clinical subtypes are reticular, papular, plaque-like, bullous, erythematous, and ulcerative but for establishing a clinical diagnosis the reticular or papular textures have to be present.[5] White or gray streaks may form a linear or reticular pattern on an erythematous background. The term Wickham striae (WS) was coined by Louis Frédéric Wickham in 1895 referring to the fine white or grayish-white lines seen on the oral mucosal lesions of LP.[6] The entire attached gingiva may appear erythematous with peeling off of the superficial epithelium termed as "desquamative gingivitis." Since there is postinflammatory hypermelanosis, especially as the lesion heals, the lesion appears pigmented.

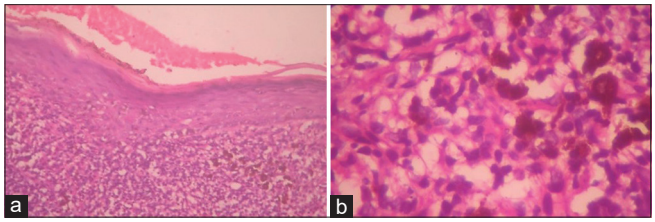

Figure 5: (a) H and E (10×) section reveals irregular acanthosis with hyperkeratosis, focal spongiosis. A subepithelial band of lymphocytic infiltrate with marked vascular proliferation is seen. (b) H and E (40×) section showing basal cell degeneration

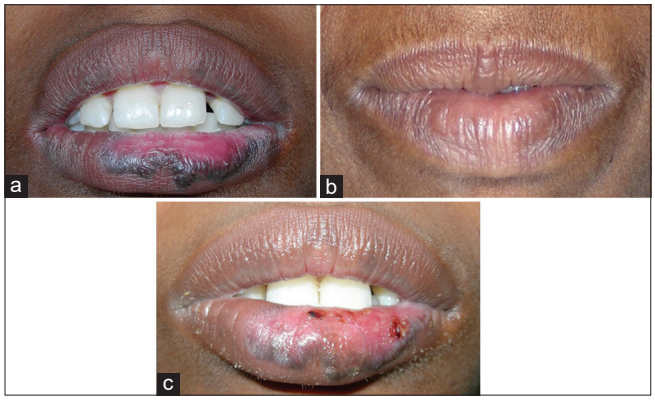

Figure 6: (a) Healing ulcer on the lower lip after a week. (b) Healed ulcer with crusts on the lower lip after 2 weeks. (c) Completely healed ulcer on the lower lip after 2 months follow-up

There may be lesions on the genitals and the extremities, pruritic flat-topped purplish papules or plaques, especially on the extensor surface of the legs and flexor surface of the wrist and ankles as seen in the present cases.

Conventionally, OLP is diagnosed clinically by the pathognomonic appearance of the reticular type occurring bilaterally on the buccal mucosa, especially when characteristic skin lesions are present. The differential diagnosis of OLP includes discoid lupus erythematosus, chronic candidiasis, benign mucous membrane pemphigoid, pemphigus vulgaris, morsicatio buccarum, oral lichenoid reactions (OLR), graft-versus-host disease, and oral leukoplakia.[7]

Histopathologically, liquefaction necrosis of the basal cell layer, a dense subepithelial band of lymphocytic infiltrate at the interface between the epithelium and the connective tissue, with focal hyper areas of hyperkeratosis, saw tooth rete ridges (though not consistently seen in OLP), and the presence of civatte bodies (eosinophilic colloid bodies) are considered characteristic of OLP.[5]

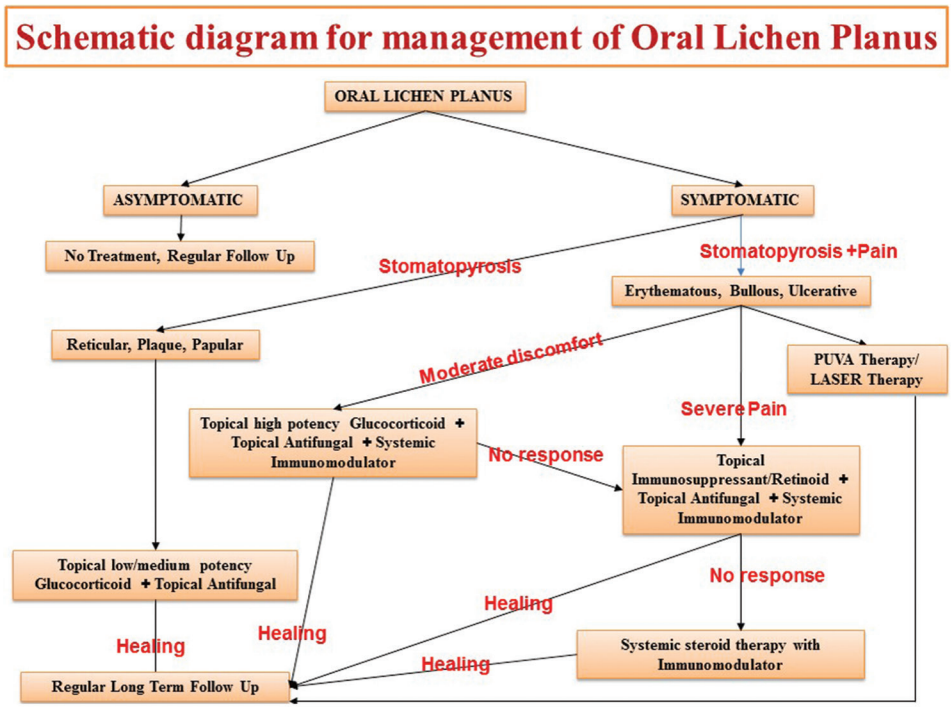

Figure 7: Schematic diagram for the management of oral lichen planus

Management of OLP is very important as it is included under potentially malignant disorders (PMDs) of the oral cavity.[8] Reticular type of OLP is generally asymptomatic and requires no treatment but regular long-term follow-ups are mandatory. For symptomatic cases, glucocorticoids and other immunosuppressants are prescribed depending on the severity and the response to treatment as shown schematically[9,10] [Figure 7].

Conclusion

The exact cause of OLP remains an enigma though some light has been shed regarding the pathogenesis of the disease. The patients need to be counseled regarding the premalignant nature of the disease and should be kept in long-term follow-up even after the healing of symptomatic lesions.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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