

CASE REPORT

Hypertrophic lichen planus on lip mimicking SCC

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Abstract

The lichen planus (LP) is an inflammatory and immune-mediated disorder that can affect the hair, mucous membranes, nails, and skin. Lichen planus rarely affects the lips. In cases of lip involvement, it presents as radiated streaks, lace-like papules, and erosions. There is no report of lip LP presenting as hypertrophic plaque. Here, we report interesting and rare clinical presentations of LP in a 45-year-old male patient that presented with a verrucous hyperkeratotic plaque on the lower lip mimicking squamous cell carcinoma. However, oral examination revealed, reticulated white patches on the bilateral buccal mucosa, and a biopsy of the lip lesion revealed lichenoid dermatitis which led to the diagnosis of hypertrophic lichen planus. Familiarity with the different clinical presentations of LP and its variants is essential for prompt diagnosis and effective treatment.

KEYWORDS

hypertrophic, lichen planus, lip, squamous cell carcinoma

1 | INTRODUCTION

The lichen planus (LP) is an inflammatory and immune-mediated disorder that can affect the hair, mucous membranes, nails, and skin.^{1,2} Oral lichen planus (OLP) is a common presentation of lichen planus that can occur alone, or accompanied by cutaneous or other mucosal manifestations.¹ OLP presents as white striations, white plaques, erythema, erosions, or vesicles affecting predominantly the buccal mucosae, tongue, and gingivae.¹ Typical histological findings of oral lichen planus include epithelial hyperplasia, hydropic degeneration of the basal layer, lymphocytic infiltration in the dermoepidermal junction, presence of necrotic keratinocytes, and the absence of epithelial dysplasia.³

Lichen planus rarely affects the lips.⁴ Lip involvement can occur isolated or with cutaneous or oral lesions. Clinical features include radiated streaks, lace-like papules, and erosions.⁵ There is no report of hypertrophic type on the lip. Here, we reported a rare case of oral lichen planus presenting as verrucous plaque arising on the lower lip, and as far as we know, this is the first reported case.

2 | CASE PRESENTATION

A 45-year-old man with no specific past medical history presented with a verrucous painless lesion on the mid-line of his lower lip for 3 months. The patient was not a smoker and also denied using tobacco or alcohol. His drug

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history was unremarkable, and no new medication was started during this period of time.

On examination, hyperkeratotic, verrucous plaques with peripheral hyperpigmentation on the lower lip were evident (Figure 1A). The upper lip was uninvolved. Intraoral examination revealed white, reticulated patches on the bilateral buccal mucosa (Figure 1B). A complete examination of the skin, nail, and other mucous membranes was normal. Provisional diagnosis included squamous cell carcinoma (SCC), actinic keratosis, chronic HSV infection, wart, discoid lupus erythematosus (DLE), and lichen planus.

Punch biopsy of the lesion revealed parakeratotic hyperkeratosis and papillomatosis with an inflammatory infiltrates predominantly composed of lymphocytes along the dermal–epidermal junction. There were some apoptotic keratinocytes, but no evidence of keratinocyte dysplasia or SCC was seen (Figure 2A,B). These features were considered to be those of lichenoid dermatitis and most consistent with lichen planus.

The patient was prescribed topical tacrolimus 0.1% and clobetasol ointment be applied locally twice a day. He was also treated with intralesional triamcinolone (10 mg/ml) monthly for 3 months.

There was considerable healing in the lip lesion during the follow-up period (Figure 3). However, two months later, recurrence was noted in the same site (Figure 4); then, oral prednisolone (20 mg per day) and mycophenolate mofetile (1 g twice a day) were added to the previous treatment. One month later, the lesions were partially regressed. A tapering

off of prednisone was carried out, and the treatment with mycophenolate mofetile was continued.

3 | DISCUSSION

Hypertrophic lichen planus (HLP) is a variant of LP, that typically presents with hyperkeratotic papules, plaques, and nodules on the lower extremities.⁶ Hypertrophic lichen planus can also affect the upper extremities and trunk, or it can also cause generalized lesions.⁷ Hypertrophic lichen planus on the lip has not been previously reported.

Lip involvement in lichen planus is quite rare.⁴ Lip lesions are more commonly observed in conjunction with cutaneous and/or oral LP but rarely occur isolated. Typical presentation includes an erythematous patch with white radiated peripheral streaks, other clinical picture includes lace-like papules, and erosions.^{4–6}

The clinical presentation of our patient's lip lesions as hyperkeratotic plaque mimicked those of actinic cheilitis, SCC, chronic HSV verrocus ulceration, pemphigus vegetan, and discoid lupus erythematosus(DLE) while reticulated patches on the bilateral buccal mucosa on oral examination and pathologic findings were indicating of true diagnose of lp.

Histopathological features of lip lichen planus are the same as cutaneous or mucosal LP.³ Characteristic histological findings of lichen planus include acanthosis, parakeratosis, hypergranulosis, as well as hydropic degeneration of the basal layer, and lymphocytic infiltration at

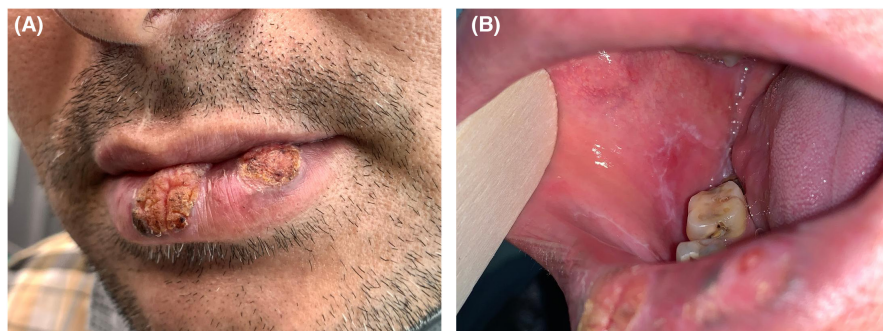


FIGURE 1 Hyperkeratotic, verrucous plaques with peripheral hyperpigmentation on the lower lip (A), white, reticulated patches on the buccal mucosa(B)

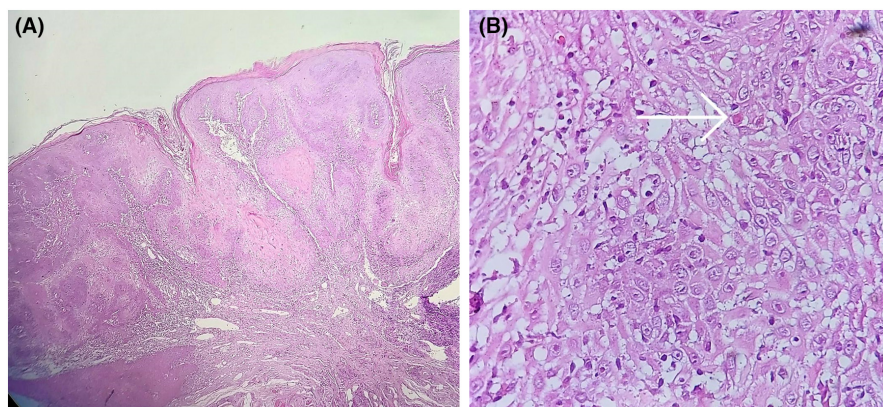


FIGURE 2 Polypoid and acanthotic epidermis with band-like infiltration of chronic inflammatory cells in subepidermal stroma (A) $\times 10$. Scattered apoptotic keratinocytes (Civatte bodies) (B) $\times 40$



FIGURE 3 Considerable healing of the lip lesions, with monthly intralesional triamcinolone (10 mg/ml) for 3 months



FIGURE 4 Two months later, recurrence was noted in the same site.

the dermoepidermal junction in a band-like manner.³ The presence of numerous degenerative keratinocytes, known as colloid or Civatte bodies, in the papillary dermis and the lower epidermis is a frequent finding in lichen planus.³

Treatment of hypertrophic LP lesions is similar to other LP variants,² topical, intralesional, or oral corticosteroids are the first-line treatments. For those patients who do not respond to corticosteroid therapy, successful treatment has been shown with mycophenolate mofetil, acitretin, cyclosporine, and biologics (adalimumab, alefacept, efalizumab).²

Hypertrophic LP is a potentially malignant condition. Malignant transformation of hypertrophic LP to squamous cell carcinoma (SCC) has been documented in studies⁸; then in such cases, long-term follow-ups are required.

4 | CONCLUSIONS

Oral lichen planus is an inflammatory condition with different subtypes that vary greatly in morphology and location; however, the histopathological findings are generally

consistent among the subtypes. Therefore, histological examination is valuable in confirming LP diagnosis in some cases with atypical presentation. Familiarity with the different clinical presentations of oral LP and its variants is essential for prompt diagnosis and effective treatment.

AUTHOR CONTRIBUTIONS

Nikoo Mozafari involved in clinical evaluation and management of the patient, and supervision of the project, and editing of the final draft of the manuscript. Farahnaz Bidari-zerehpooosh involved in histopathologic evaluation of patient biopsies, and writing and editing of the final draft of the manuscript. Mahdiyeh Movahedi involved in writing the draft of the manuscript. Sahar Dadkhahfar involved in editing of the final draft of the manuscript.

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CONFLICT OF INTEREST

None.



DATA AVAILABILITY STATEMENT

The data presented in this study are available on request from the corresponding author.

CONSENT

The patient in this manuscript gave written informed consent for the publication of her case details.

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