

Single Case

# Isolated Actinic Lichen Planus of the Lower Lip

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## Keywords

Lichen planus · Actinic lichen planus · Lip · Histopathology

## Abstract

Oral lichen planus (LP) is a common manifestation in patients with LP; however, isolated lip LP is rare and may mimic other conditions such as lichenoid drug eruptions, actinic cheilitis, and early carcinoma in situ in the absence of typical skin lesions. Actinic lichen planus (ALP) is a variant of LP occurring on light-exposed areas in patients with dark skin. We report the case of a Chinese female with isolated ALP of the lower lip, mimicking herpes simplex infection at presentation. The presence of prognathism, involvement of the lower lip, and flares associated with sunlight reinforces the role of sun exposure in the development of this condition.

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## Introduction

Oral lichen planus (OLP) is common in patients with lichen planus (LP); however, involvement of the lip is rare. A clinical review by Nuzzolo et al. [1] in Italy found that of 325 patients with OLP, 13 had OLP involving the lips, and only 2 of them had isolated lip involvement. We report a case of isolated actinic lichen planus (ALP) of the lower lip with recurrent episodes triggered by sun exposure.

## Case Report

A 62-year-old Chinese female presented with a history of recurrent ulceration of the lower lip for the past year. There were no oral or skin lesions. The ulceration recurred once a month, usually precipitated by sun exposure. She had poor dentition and had been wearing dentures for the past 20 years. She did not have any recent dental works and was a non-smoker. She had a past medical history of uterine leiomyoma. There were no new medications or exposures, apart from a recent course of oral cefuroxime.

On examination, mandibular prognathism was evident. An irregular reticulated white plaque was present on her lower lip (Fig. 1). The upper lip was uninvolved. There were missing teeth and dental caries suggestive of poor dentition. She also had background sun-related skin changes such as solar lentigines and fine wrinkles.

She was initially treated with oral acyclovir for HSV stomatitis. A biopsy of the lip was done to rule out actinic cheilitis and autoimmune blistering disease. This revealed erosion of squamous epithelium with subepidermal clefting, interface vacuolar change, and a subadjacent band of lymphocytes, some plasma cells, and histiocytes (Fig. 2). Fungal and viral stains were negative. Direct immunofluorescence was negative. These features were consistent with actinic oral lichen planus.

She was advised sun protection and treated with topical tacrolimus, topical hydrocortisone, and Vaseline lip therapy. Lip lesions improved; however, she missed topical treatment intermittently with resultant erosive flares particularly after sun exposure. During her follow-up of 2 years, there were no other cutaneous or mucosal lesions.

## Discussion

The classification of OLP has been simplified into 3 subtypes: reticular, atrophic, and erosive (including ulcerations and bullae) [2]. Subtypes may coexist [3], as is evident in this patient who manifested both the reticular and erosive form of the condition.

ALP is a variant of LP occurring on light-exposed areas in patients with dark skin [4]. The role of sunlight in lip LP has been suggested by the increased frequency of lower lip involvement and male predominance in OLP [1]. Interestingly, the mandibular prognathism of our patient and resultant protuberance of her lower lip were an anatomic risk factor for increased sun exposure. This explains the sole involvement of her lower lip. Other risk factors for OLP in this patient include poor dental hygiene.

Clinical differentials include oral lichenoid lesions, lichenoid drug eruptions, actinic cheilitis, herpes simplex lesions, autoimmune blistering diseases, and early carcinoma in situ. The diagnosis of lip ALP can be difficult to make in the absence of skin or other oral lesions, but a suggestive history of sun exposure in a physically predisposed individual may lend suggestion to the diagnosis.

## Statement of Ethics

This study was carried out with informed consent by the patient and conforms to institutional standards on human research

### Disclosure Statement

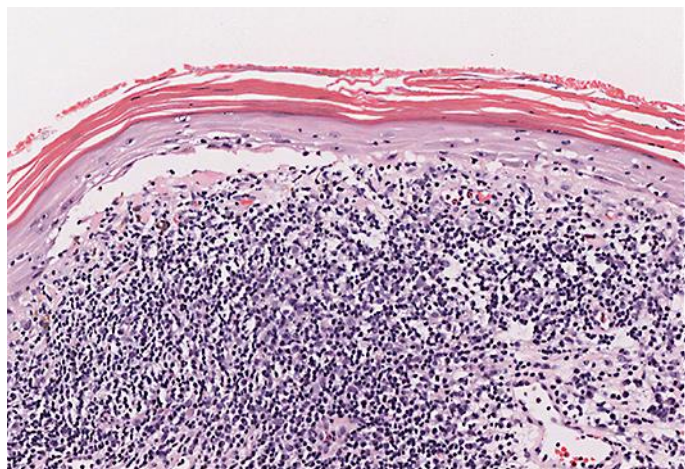
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**Fig. 1.** Clinical image showing a reticulated white plaque on the lower lip.



**Fig. 2.** Photomicrograph of the lip biopsy showing a lichenoid lymphocytic infiltrate with interface vacuolar change and focal subepithelial blistering. HE. Original magnification  $\times 100$ .