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Case Report

Unveiling oral psoriasis: Beyond skin lesions- A case report

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Abstract

Oral psoriasis is a rare and often overlooked condition, affecting 1–3% of the global population. Oral involvement can present unique challenges in diagnosis and treatment. The prevalence of abnormal oral mucosa was higher in patients with psoriasis (74%) compared to (46%) in the general population. Approximately 50% of oral psoriasis cases occur before the second decade of life, highlighting its relevance in younger populations. In India, the prevalence of oral psoriasis is even lower, affecting only about 0.7% of individuals with psoriasis, making its recognition critical in clinical practice.

A 13 year old male patient reported to the outpatient department with complaint of dry and itchy lips since past two years. Dryness, scaling, and bleeding cracks on both lips were observed on clinical examination. On careful examination fissured tongue and geographic tongue were also present.

This case report highlights the importance of considering oral psoriasis in the differential diagnosis of chronic lip and oral lesions, particularly in young patients. Careful examination of skin lesions is essential for proper diagnosis and treatment planning.

Keywords: Lip psoriasis, Oral psoriasis, Geographic tongue, Fissured tongue.**Received:** 05-07-2025; **Accepted:** 13-08-2025; **Available Online:** 29-09-2025

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1. Introduction

Psoriasis is a common, chronic, immune-mediated skin condition, with prevalence between 0.9% and 8.5% of the adult population worldwide, often genetically determined, that primarily affects the skin and can involve the joints. It commonly begins in the second or third decade of life, although it can appear at any age. It affects males and females equally, with no significant gender predisposition.^{1,2} It is characterized by accelerated skin cell turnover, producing epidermal cells 6 to 9 times faster than normal, leading to the formation of thick, silvery plaques or scales on the skin's surface. The most common areas for these lesions to appear are the elbows, knees, scalp, and fingernails, as well as the toe nails.^{2,3}

Oral psoriasis is a rare form of psoriasis that affects the inside of the mouth, commonly appearing on the lip, cheeks, gums and tongue. Psoriatic involvement of oral mucosa and other mucous membranes is seen particularly in association

with specific types such as pustular psoriasis and psoriatic erythroderma. Symptoms may include ulcers, redness, gum peeling, and raised patches within the oral cavity.¹

2. Case Presentation

A 13-year-old male patient visited the Department of Oral Medicine and Radiology, Subharti Dental College and Hospital, Meerut presented with a chief complaint of dry and itchy lips since past two years. He was asymptomatic two years back when he started noticing dryness and scaling on his lips. These scales would shed and reappear every 2–3 days. The patient reported a past habit of lip biting, which he stopped six months ago. There was no history of using new lip cosmetics or oral products. On clinical examination, there was dryness, scaling, and bleeding cracks on both lips (**Figure 1**). On the hands multiple red, scaly patches, 1–2 cm in diameter were observed on the fingers and palms (**Figure**

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2). The scales shed easily, leaving pinpoint red, tender areas, a hallmark of Auspitz's sign. Additionally, fissured tongue and geographic tongue were noted (**Figure 3**). The patient was thus diagnosed as Psoriasis with exfoliative cheilitis. The patient was then referred to dermatology department where the diagnosis was confirmed. Tab Levocil (Levofloxacin) 250mg once a day, Cap Becosule once a day, Tripletop ointment [clobetasol, salicylic acid and coaltar solution] (twice daily application (for hand) and Desowen cream (desonide-0.05% w/w-corticosteroid) twice daily (for mouth) was prescribed for 15 days. On Follow up the patient showed drastic improvement on lips and hands both (**Figure 4**).



Figure 1: Erythematous plaques with scaling and fissuring on both lips



Figure 2: Erythematous plaques with silvery-white scales on hand



Figure 3: Photograph showing Fissured and geographic tongue



Figure 4: Photograph showing post treatment result after 15 days

3. Discussion

Oral Psoriasis is an extremely uncommon presentation, with fewer than 100 documented cases worldwide with most common site tongue. Other sites include buccal mucosa, gingiva, and palate. The localization of psoriasis in the lips has been rarely reported in the literature, and to the best of our knowledge, the present case is the 17th reported case in the literature.²⁻⁴ The most commonly reported oral conditions are geographic tongue and fissured tongue, with fissured tongue being more frequent in psoriatic patients than in the general population.⁵

Altemeir A et al reported that approximately 74% of individuals with psoriasis exhibited oral mucosal abnormalities, compared to 46% in the general population.¹ The only case with intraoral involvement was reported by Migliari et al., while Brenner et al. described a case of lip psoriasis triggered by protruding teeth, which did not respond to any dermatological treatments, including topical corticosteroids. However, the lip lesions completely resolved after the protruding teeth were replaced with a nonirritating prosthesis.^{6,7} Our patient was also in a habit of chronic lip

biting and this could be one of the causes for Oral psoriasis on lips. All this can be explained on the basis of Koebner phenomenon (the emergence of new lesions in the non-involved skin/mucosa following an injury/trauma) that has also been described in other skin diseases including vitiligo, lichen planus, viral warts, and molluscum contagiosum.⁸

While the cutaneous manifestations of psoriasis are well-documented, there is limited data on oral involvement. As in the present case, the patient exhibited scaly patches, dryness, and bleeding cracks on the hands and lips. The scales shed easily, exposing pinpoint red areas that were tender to the touch, a classic manifestation of Auspitz's sign in psoriasis.⁹

Literature review by Tarkji B et al and other studies suggests that geographic tongue is significantly more frequent in psoriatic patients, with a prevalence ranging from 14% to 47% across various populations. Another study on 200 patients by Daneshpazhooh M et al concluded that fissured and geographic tongue were the most common findings and they usually co-exist as was seen in the present case.^{1,4,10}

Psoriasis of the lips can be clinically confused with Cheilitis Simplex (cracked lips, fissures or desquamation of the lips, frequent lip licking promotes dryness and irritation, ending in separation of the mucosa and cracking); Angular Cheilitis (seen in elderly persons typically manifests at the corners of the mouth more commonly in diabetics, in patients with some psychiatric disorders), Contact/Eczematous Cheilitis (an inflammatory lip reaction caused by the irritating or allergic effects of various substances found in many products such as lipsticks, oral hygiene products (toothpastes) manifests as dryness, scaling, erythema or fissuring of lips), Actinic Cheilitis (due exposure to ultraviolet radiation, thus it is commonly found in certain groups of workers (sailors, agricultural workers, construction workers painless thickening and whitish discoloration at the borders of the lips), Granulomatous Cheilitis (a chronic granulomatous lip swelling of unknown etiology presents with intermittent or permanent lip swelling), Glandular Cheilitis (A rare chronic inflammatory condition of the minor salivary glands, predominantly of the lower lip), Drug-induced Cheilitis (lesions due to drug intake, mainly retinoids (e.g., isotretinoin, acitretin) or other medications (topical antibiotics, virostatic agents, lip care products etc.), and Exfoliative Cheilitis (chronic superficial inflammatory disorder of the vermilion borders of the lips characterized by persistent scaling).^{3,11-15}

Management of oral psoriasis ranges from non-intervention to advanced treatments like use of calcipotriol (Vitamin D analogue); Vitamin A analogue; Light therapy (PUVA, NB-UVB) and excimer laser targeted biologic therapies (like TNF- α inhibitors - etanercept, infliximab, adalimumab, certolizumab, and golimumab; IL-23 antagonists - guselkumab, tildrakizumab, risankizumab, and mirikizumab; two monoclonal antibodies with high IL-17A

affinity: secukinumab and ixekizumab; and skin grafting. However, the mainstay in treatment is corticosteroids and immunomodulators like clobetasol, tacrolimus, cyclosporine, methotrexate. Topical therapy aims at gently removing scales; and reducing discomfort by applying salicylic with emollient creams, and using petroleum gel to prevent dryness and cracking of lips.^{2,3} Treatment in the presented case also consisted of an immunomodulator, steroid ointment and antibiotic Levofloxacin. Although there is limited and varied evidence for systemic antibiotic therapy efficacy in psoriasis treatment, Al bahadly W.K.Y et al in his study concluded levofloxacin ointments at the specified concentrations could significantly reduce the severity of symptoms such as erythema, scaling, and thickening, as well as inflammation.^{17,18}

4. Conclusion

Psoriasis is a common skin condition, but reports of oral psoriasis in the literature are rare. This case highlights the importance of considering oral psoriasis in the differential diagnosis of chronic lip and oral lesions, particularly in young patients with systemic symptoms. Greater awareness among clinicians can lead to timely diagnosis and better management of this rare condition.

Further research is needed to understand the pathophysiology and optimal therapeutic approaches for oral psoriasis, particularly in regions where its prevalence is low. This case contributes valuable insights to the limited literature on this rare entity.

5. Source of Funding

None.

6. Conflict of Interest

None.

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