INTRODUCTION

Lichen planus is an inflammatory pruritic disease of the skin and mucous membranes. The exact prevalence of lichen planus is unknown but it is estimated to occur in approximately 1% of the adult population. The female to male ratio is 1.4:1. It predominantly occurs in adults older than 40 years, although young adults and children can be affected as well.

In the skin, it is characterized by distinct papules with a predilection for the flexor surfaces and trunk. Mucosal lichen planus involves the oral cavity, genital and anorectal areas, gastrointestinal tract, larynx and conjunctivae. The mouth is involved in 50% of cases and is often the only affected area. Here, the lesions may involve the inside of cheeks and the sides of the tongue, but the gums and lips may also be involved. These mucosal lesions have a lacy white network overlying them, which may be confused with leukoplakia. The oral manifestations of lichen planus generally have typical clinical aspects and distribution, but the atrophic and erosive forms may be challenging even for the experienced dental practitioners. Atrophic lesions account for 5% to 44% of oral lichen planus manifestations, while the erosive or ulcerative ones vary between 9% and 46% of cases.

CASE REPORT

A 41-year-old illiterate female patient from a very low socioeconomic background reported to the medical outdoor at CMH, Bahawalnagar with 15 months history of progressively severe mouth ulceration. The ailment gradually became severe enough to interfere with her feeding as she became unable to take solid food and her diet was markedly restricted. She had received symptomatic treatment from various set-ups at Bahawalnagar and Bahawalpur, but relief was subtle and short-lived.

On presentation, she was found to be malnourished and cachectic. The patient did not complain of any systemic upset or urogenital symptom. Clinical examination of the oral cavity revealed extensive ulceration with marked erythema, friability and creamy white exudate involving the whole buccal mucosa bilaterally, including the gums, cheeks, gingivae, lips, throat and tongue (Figure 1). There was also extensive desquamatosus gingivitis. The hard and soft palates were spared. Lesions were freely bleeding and very tender. There were some encrusted lesions on the lower lip. Oral and dental hygiene was extremely poor. In addition, she had multiple missing teeth, heavy calculus and plaque deposits, along with sharp teeth and malposed upper molar, which was biting into the cheek. As a result of extensive involvement of oral cavity, she was unable to speak and open her mouth for proper examination. The probable etiology and the aggravating factor of the lesions in the oral cavity in this case seemed to be the dental trauma.

ABSTRACT

A case of recurrent progressively severe ulceration secondary to erosive lichen planus is reported. The patient developed marked malnutrition as a result of extensive involvement of the oral cavity. In addition to the oral ulcerations, she also had violaceous spots present over her forearm. Treatment administered in view of histopathological report and clinical presentation, resulted in marked improvement in symptoms and weight gain.

Key words: Recurrent oral ulceration. Erosive lichen planus. Oral hygiene. Malnutrition.
On detailed clinical examination, she had flat-topped violaceous spots on her right forearm, which were noticed with difficulty due to background of dark coloured skin (Figure 2). On inquiry, she told that these lesions were mildly pruritic. Rest of the examination was unremarkable.

![Figure 1: Extensive oral involvement in erosive lichen planus.](Image)

![Figure 2: Violaceous purple blue spots on forearm in erosive lichen planus.](Image)

The patient was admitted and evaluated. Routine investigations did not reveal any gross abnormality. After settling the infection with broad spectrum antibiotics, her oral and dental hygiene was improved with thorough scaling of teeth. The sharp edges were smoothened. The tooth impinging on the buccal mucosa was extracted and gentle debridement of the affected area was done. After this, a mucosal biopsy was taken from the most severely affected area on the left buccal mucosa and the sample was sent for histopathological evaluation.

Histopathological report confirmed lichen planus. Considering the clinical picture and the histopathological findings, a final diagnosis of erosive lichen planus was made. She was advised chlorhexidine mouth wash and local steroids mouth wash (Beta-methasone 0.5 mg tablet dissolved in 15 mls water was used as a mouth rinse for 1 minutes thrice daily). Due to widespread and extensive nature of oral lesions, the patient was also started on oral prednisolone 45 mg per day. Other supportive treatment modalities were accordingly continued. A nutritious diet including fresh fruits and vegetables was advised. She was also advised to refrain from Huqqa/cigarette smoking and was also advised performing brushing of teeth twice daily. The patient started making visible response within one week, and was discharged from the hospital with regular follow-up in the outdoor. On re-evaluation after 6 weeks, she was a healthy looking, very cheerful lady who described remarkable subjective improvement in her condition. She had marked regression of symptoms as she had started taking meals of her choice and had started gaining weight. Repeat examination revealed a very nicely cleaned oral cavity with no ulceration except for a mild erythematosus lesion on the biopsy site. Although the skin lesions were present, they had regressed and were not bothering her. She was advised a further 2 weeks tapering dose of steroids, which were later on stopped accordingly. No recurrence has yet been noticed after 6 months steroid free period.

**DISCUSSION**

The oral manifestation of lichen planus generally has typical clinical aspects and distribution but the erosive form may be challenging even for the most experienced practitioners. Oral mucosal lesions are variable and present as white striations (Wickham striae), white papules, white plaques, erythema (mucosal atrophy), erosions (shallow ulcers), or blisters. There are certain other conditions in which ulcers can be found in the oral cavity in addition to erosive lichen planus. These include *Pemphigus vulgaris*, Behcet’s disease, Steven Johnson’s syndrome and recurrent herpes simplex, in addition to recurrent major aphthous ulcers. Hormonal dysfunction, candidiasis, lichenoid lesions and the vulvo-vaginal-gingival syndrome must also be included in the differential diagnosis of oral erosive lichen planus. But, it is the face-like pattern of white linear ulcers associated with typical skin eruptions of violaceous, flat topped lesions, which makes the distinction between lichen planus and other lesions. The white lesions in oral cavity secondary to erosive lichen planus might be confused with oral leukoplakia, candidiasis or secondary syphilis, which can be excluded by history and physical examination. Microbiological tests are also useful in making this differentiation. Atrophic lichen planus is described as a sequel to resolving annular and ulcerative lesions and has not been described at the outset.

The malignant transformation of oral erosive and atrophic lesions has been described from 0.3% to 12.5% depending on different criteria adopted by the authors. The development of squamous cell carcinoma may occur in areas directly affected by lichen planus, as well as in other areas of the oral mucosa. However, it is not established if atrophic and erosive forms of lichen planus have an intrinsic potential for malignant transformation or if the disorder facilitates the development of oral mucosa squamous cell carcinoma by influence of exogenous carcinogens.

The diagnosis of lichen planus is often made by a biopsy, which is recommended to confirm the diagnosis and also to look for malignancy. The histology is characteristic. Direct staining by immunofluorescent techniques may reveal deposits of immunoglobulins at the base of the epidermis. As the histopathology is quite diagnostic for lichen planus, so immunofluorescence is not routinely performed and was not carried out in this case.

Topical steroids are the first choice in the treatment of oral lichen planus. Steroids ointments are generally applied for 4-6 weeks. In the mouth, steroid pastes may be easier to apply to affected sites. However, steroid mouth washes can be as effective as the ointments and pastes. Corticosteroids can also be given intraleosionally and systemically (orally). Systemic steroids, such as...
prednisolone may be prescribed for a few weeks or longer in extensive cases. Extensive oral lichen planus that is recalcitrant to the topical steroids may respond to topical tacrolimus. One percent pimecrolimus cream also seems to be an effective and well tolerated treatment for oral erosive lichen planus. The finding of systemic levels of pimecrolimus after mucosal applications necessitates to long-term study, because it seems that long-term application is required to maintain clinical improvement. Thalidomide is also effective in severe corticosteroid resistant and dependent cases or when systemic corticosteroids are contraindicated in erosive oral lichen planus. Potentially serious side effects should restrict its use to the most severe forms of the disease. Immunosuppressive agents like azathioprin are used for painful, erythematous and erosive lichen planus that is recalcitrant to topical corticosteroids. However, it has increased risk of neoplasia, caution should be taken in liver disease and renal impairment. Other potential therapies for resistant oral lichen planus include hydroxychloroquin, mycophenolate mofetil, dapsone, cyclosporine A and retinoids. Low dose methotrexate also has a substantial activity in oral lichen planus. Although, effective in preventing iatrogenic candidiasis, the addition of antifungal agents like miconazole, to the topical steroid treatment does not improve the efficacy of the therapy.

In the present case, there was a history of chronically progressive involvement of oral mucosal membrane. This was associated with skin lesions, which were subtle but gave very strong clue to the exact diagnosis.

REFERENCES