Ulcerative Lichen Planus in childhood. Case study

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Abstract
Lichen planus (LP) is a chronic inflammatory mucocutaneous condition which is relatively common in adults but rarely affects children. The present study is on report an unusual case of ulcerative oral LP involving the dorsum of tongue in 12 year old boy. Patient complained of painful oral lesion on the tongue which was burning in nature and obstructing talking and eating spicy foods. On intra oral examination, a white ulcerative lesion on the dorsum of tongue was observed. Diagnosis was made based on clinical examination and histopathological features. We instituted local treatment and patient responded well to the treatment. Although rarely reported in childhood, lichen planus should be considered in a differential diagnosis of hyperkeratotic, reticular and ulcerative lesions of the oral mucosa in children. Keywords: Oral lichen planus (OLP), childhood, ulcer.

Introduction
Lichen planus (LP) is an autoimmune, chronic, inflammatory disease that affects mucosal and cutaneous tissues. The exact etiology of LP is unknown, but it is believed to result from an abnormal T-cell-mediated immune response in which basal epithelial cells are recognized as foreign because of changes in the antigenicity of their cell surface. Oral lichen planus (OLP) is a common disease in the middle aged and elderly population, and has a prevalence of about 0.3% to 2%. In contrast, oral lichen planus in childhood (OLP) is rare and it was first reported in 1950’s. Oral mucosal involvement in adult itself account for 0.5% to 5% while in childhood, it is very uncommon.

The oral lesions are more polymorphic than those of their cutaneous forms and subtypes are categorized as reticuloe, papular, plaque-like, atrophic, erosive, and bullous. The erosive form is extremely rare in children and few reports on this subject have been published in the literature. Hereewith, we are presenting a case of 12 year old boy having erosive lichen planus without cutaneous involvement, which responded very well to treatment. This article also reviews ulcerative oral lichen planus in children and emphasizes its diagnosis from other oral white and red lesions in children.

Case Report
A 12 year old boy reported to the Department of Pedodontics and Preventive dentistry, with the chief complaint of ulcer on his dorsum of the tongue which is causing burning sensation while in consuming spicy foods from past 1 year. There is no significant Medical history observed. On extra oral examination patient was normal. On intra oral examination, a single irregular red and white ulcerative lesion measuring approximately 2.5x0.5 cm in muscle 3.5 times per day for the duration of one week. Topical aesthetic was given for the pain relief. First review of the patient after 15 days showed significant reduction in both symptoms and signs of the oral lesions. (Fig. 4) After 15 days, there is good progress in the recovery of ulcerative lichen planus. Erosive oral ulcerative oral lichen planus had completely healed at the end of 30 days (Fig. 5) which was observed on periodic recall follow up.

Histopathological examination showed hyperkeratosis of the stratified squamous epithelium and basal cell degeneration with dense band-like lymphocytic infiltration at the epithelial-connective tissue interface (Fig. 6). Both clinical and histopathological features were consistent with ulcerative oral lichen planus. Specific treatment for ulcerative oral lichen planus was advised.

Fig. 1: Dorsum of Tongue showing Ulcerative lesion

Fig. 2: Photomicrograph (5x magnification) of ulcerative LP

Fig. 3: Mid treatment (15th day of treatment) showing reduction in size & healing of the ulceration

Fig. 4: Complete healing of ulcer on Tongue (after 30 days of treatment)

Fig. 5: Pre treatment photograpgh

Fig. 6: Mid treatment photograpgh

Fig. 7: Post treatment photograpgh

Discussion
The differential diagnosis was lichen planus and lichenoid lesions. To exclude lichenoid reaction, we investigated his medical status and there was no history of any drug intake. The patient and his parents also denied any habits that may potentially cause oral mucosal ulcerations.

Predisposing conditions such as graft-versus-host disease, active hepatic or renal failure, and malignancies were absent.檫

Conclusion
Oral lichen planus in childhood is rare, especially erosive form, diagnosis is less common among children presenting with ulcerative white lesions in oral cavity. The schedule of follow-up of OLP in children should be 7 days, 15 days and 30 days after diagnosis to assess healing. Patient should be reviewed twice a year for regular follow up after complete recovery of the present condition. However generally, the prognosis of oral lichen planus in childhood seems to be more favorable compared to adults.

References
4. Kumar V and Gang BR reported only one case had oral ulcerative lichen planus out of 25 patients with cutaneous lichen planus.
5. The mean interval between vaccinations and LP onset was three years, ranging between three months and 11 years. Handler and Sahoo reported LP in children with LP and with concomitant oral lesions in 15 of 100 and they stated that the oral mucosa seems to be less commonly involved in children with LP than in adults.
6. The differential diagnosis was lichen planus and lichenoid lesions. To exclude lichenoid reaction, we investigated his medical status and there was no history of any drug intake. The patient and his parents also denied any habits that may potentially cause oral mucosal ulcerations.
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Fig. 1: Dorsum of Tongue showing Ulcerative lesion

Fig. 2: Photomicrograph (5x magnification) of the lesion

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