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 attracting 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 0.5% 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 0.8% while in children, it is very uncommon.1

The oral lesions are more pleomorphic than those of their cutaneous forms and subtypes are categorized as reticular, 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. Herein, we are presenting a case of 12 year old boy having erosive lichen planus without cutaneous involvement, which responded very well to treatment. The 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 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 white ulcerative lesion measuring approximately 2.5 x 0.5 cm in muscle 3.5 times per day for the duration of a week. Topical antiseptic 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 progression in the recovery of ulcerative lichen planus. Erosive oral ulcerative oral lichen planus had completely healed at the end of 30 days (Fig. 5). The lesion was observed on periodic recall follow up.

Oral lichen planus in childhood (OLP) is rare and only a few reports are available in the literature.4 Oral lichen planus can be divided into a hyperkeratotic (white) variant, commonly without symptoms, a reticular type with Wickham’s striae (often symmetrical), papular, and plaque-like types. The atrophic/erythematous (red) variant and the erosive/ulcerative (guttate) variant often have persistent symptoms of pain or stinging aggravated during talking and eating spicy foods. These variants may occur together in one patient or may transform one to another. The lesions were found more commonly in the buccal mucosa (often symmetrical), lateral margins of the tongue, gingiva and lips.

Whereas cutaneous LP is self-limiting, ulcerative OLP is chronic, rarely undergoes spontaneous remission. The family history of LP is more common in tropical countries like India6 Sharma and Maheshwari reported 50 children with LP and with concomitant oral lesions in 15 of them and they stated that the oral mucosa seems to be less commonly only involved in children with LP than in adults.7

Predisposing conditions such as graft-versus-host disease, active hepatic, and the buccal mucosa lesions are rather frequently mentioned in these reports. Kumar V and Gang BR reported only one case had oral ulcerative lichen planus out of 25 patients with cutaneous lichen planus.8 The mean interval between vaccinations and LP onset was three years, ranging between three months and 11 years. Handsa and Sahoo reported in a study of 15 patients in India seven patients showed involvement of the oral mucosa and only one patient had oral ulcerative lichen planus without skin involvement.9

A year retrospective study done by Scully et al,10 which comprised of 10200 patients below 18 years, with a boy to girl ratio of 1:1 which have shown only 3 patients (0.03%) were diagnosed with oral lichen planus. A study done in United Kingdom by Alam and Hamberger in boys aged between 6-14 years over a period of 12 years have proved only 6 boys were diagnosed with OLP and interestingly among those 6 patients, 4 were Asians.11 In 1994 Scully et al reported 3 girls with OLP, of whom one was from Asian origin.12 The difference in the prevalence of OLP in children (0.03%) versus OLP in adults (0.5-2%) is understood by less frequent and systemic associations of cutaneous oral lichen planus: a study of 279 patients. 13

A study done by Louden and Stor,14 which included 200 patients with LP, of whom 132 were children, showed that the oral lesion was the initial manifestation in 33% of patients. In the present study, oral lichen planus was the initial manifestation in 50% of patients. A retrospective study by Albin and Stor,15 which included 200 patients with LP, of whom 132 were children, showed that the oral lesion was the initial manifestation in 33% of patients. A retrospective study by Albin and Stor,15 which included 200 patients with LP, of whom 132 were children, showed that the oral lesion was the initial manifestation in 33% of patients.

Conclusion
Oral lichen planus in childhood is rare, especially erosive form, diagnosis and treatment is complex. A report of one case presenting with ulcerative white lesion 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 progression of the present condition. However generally, the prognosis of oral lichen planus in childhood seems to be more favorable compared to adults.

References

7. Reference: The full reference list is available from the publisher.

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