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RESEARCH ARTICLE

LICHEN PLANUS IN A 6 YEAR OLD CHILD – A RARE CASE REPORT

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ABSTRACT

Lichen planus is an chronic mucocutaneous condition that affect adults and is uncommon disease for a child, but in rare condition it may affect children of any age. In this case a 6 years old female child presented with oral ulcerative lichen planus that involves the dorsum of the tongue and right buccal mucosa for past 6 month. She also hadextroral manifestation of lichen planus involving the hand wrist region and ankle of the knee region. Oral Lichen planus was confirmed with the clinical and histopathological features. Patient was under treatment for both intraoral and extra oral manifestation.

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INTRODUCTION

The term lichen planus was first introduced by Erasmus Wilson in 1869 and it is characterized by 6 p's - purple, polygonal, pruritic, papules, planar plaque. The etiology of lichen planus is unknown however it is believed to result from an abnormal T Cell-mediated immune response against the host cell in which the basal epithelium are recognized as foreign because of changes in antigenicity of the cells present in the surface (Patel *et al*., 2005). The prevalence of oral lichen planus is about 0.5% to 2% and it usually affects the middle aged population. Lichen planus is considered to be rare in childhood hence we present a case of lichen planus that affects 6 year old female child.

Case report

A 6 year old female patient reported along with her patents to private clinic with a chief compliant of ulceration in her tongue for past 6 months (Fig.1). History revealed that there was burning sensation on taking spicy food. Her medical history revealed that patient is under medication for extra oral lichen planus for past 1 year. On examinationextra oral manifestation of multiple tiny papules which were shiny, non-pruritic and measuring about 0.3-0.7 mm in diameter seen in wrist, ankle and knee (Fig. 4,5). Intra oral lesion presented as single irregular red and white ulcerative lesion measuring approximately 3X2 cm in diameter surrounded by an inflammatory red border on thedorsum of the tongue with areas of depapillation (Fig-2). On right buccal mucosa there was fine white radiating straies seen extending from retromolar region till commissure of lip (Fig-3). With this a provisional diagnosis of Lichen planus was considered. Following which an incisional biopsy was performed in right buccal mucosa under LA with parents consent and the specimen is subjected to histopatholgical examination. Histology reveals parakeratinized stratified squamous epithelium showing subepithelial band of lymphotic infiltration with areas of basal cell degeneration (Fig.6). The underlying fibrocollagenousstroma exhibits moderate vascularity. These features were suggestive of lichen planus. Treatment was started withtriamcinolone acetonidebuccal paste three to four times daily for 2 weeks following which the burning sensation has been reduced and the lesion also shows regression. (Fig. 7) Patient is currently umder follow up.

DISCUSSION

Oral lichen planus in childhood is a rare condition and only few cases are reported. Oral lichen planus with extraoral manifestation are seen only in 10% of the cases in adults.

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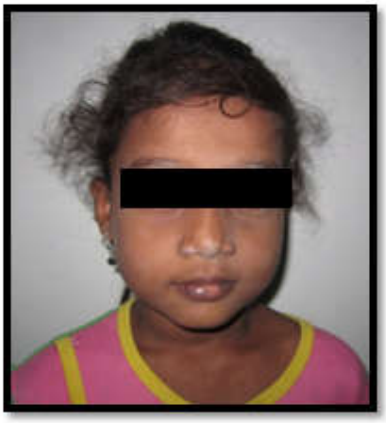


Fig-1 : Facial profile

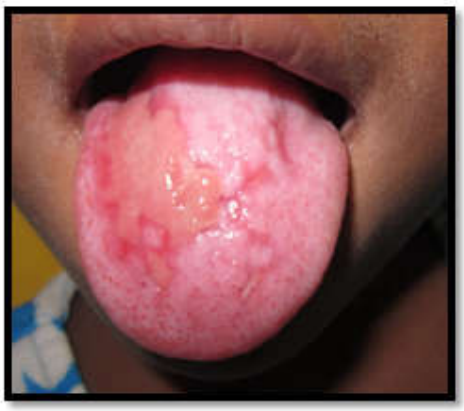
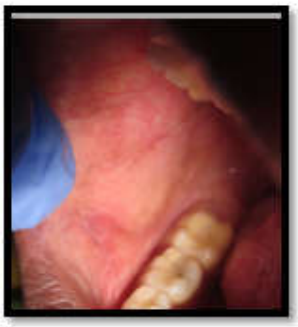
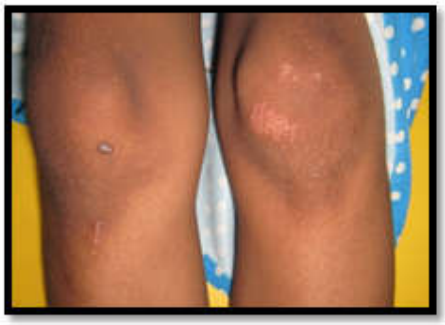


Fig-2 : Ulcerative lesion seen in dorsum of the Tongue





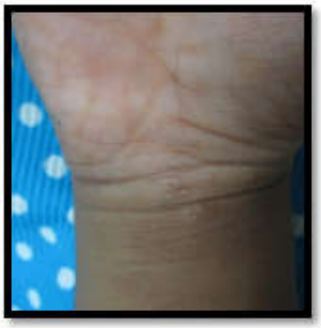


Fig-3: Lesion seen on the right Buccal mucosa, 4: Lesion on the Knee 5: Lesion seen on the Wrist

10x

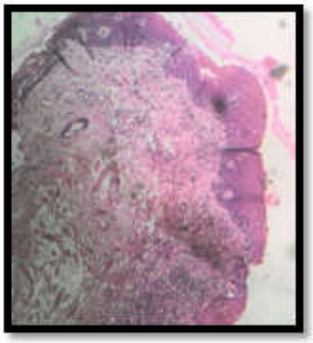


Fig-6. Subepithelial band of lymphotic infiltration with areas of basal cell degeneration

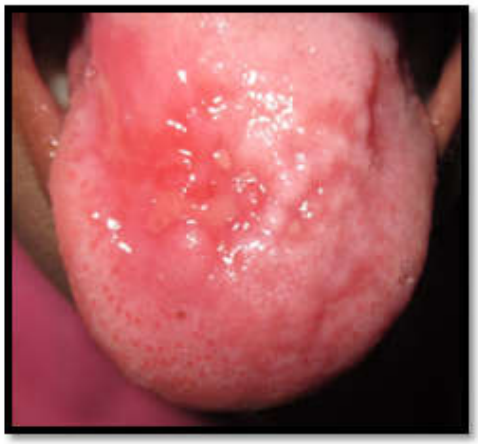


Fig-7. Two weeks follow up picture shows the healing tongue lesion

The prevalence of oral lichen planus is about 0.5% to 2% in overall population and the prevalence of oral lichen planus in children vary from 0.56% to 13% of all the all the lichen planus reported (Natalie Kelner *et al*., 2012) and it is very rare in infants. (Kanwar *et al*., 1989) Lichen planus in children affecting oral mucosa is even more rare and the rarest is the involvement of both oral and extra oral manifestation. (Handa and Sahoo, 2002) Our case is consider to be the rarest form since it involved both oral and extra oral region. The first reported case of lichen planus affecting child is reported in 1920 after which only few cases were reported in literature and it seems to be common in Asian population. The etiology of lichen planus remains uncertain however some factor seen associated with the lesions that includes autoimmune diseases, infections and drug usage. Childhood lichen planus can be an complication of Hepatitis B & C vaccination (HBV) since the recombinant proteins present in the HBV vaccine, especially the viral S epitope are capable of trigger a cell-mediated auto - immune responsewhich target the keratinocytes leading to lichenoid reaction. Our patient had no history of such vaccination. (Limas and Limas, 2002) Woo *et al*. 2007 reported 2 cases of juvenile oral lichen planus with review of literature from 1990 to 2005 in which he found male predilection in juvenile oral lichen planus and the common age of occurrence was around 11 to 15 years. In his study buccal mucosa was consider as the common site of occurrence with a reticular pattern. (Woo *et al*., 2007) Our case was a 6year old female and the site of occurrence is on buccal mucosa and tongue with a ulcerative lichen planus. Kumar *et al*. reported only a single patient with oral mucosal lesions out of 25 children with cutaneous involvement in his study. (Kumar *et al*., 1993) Management of juvenile OLP is same as the adult patients with symptomatic. Treatment with topical corticosteroids and supportive therapy. Most of the cases respond well. Our patient is also treated with topical steroid and the symptoms are relieved. The malignant transformation for a juvenile OLP has not be reported till date. (ChiyaduPadmini *et al*., 2013) Patient is under regular follow up.

Conclusion

To conclude children of any age with red and while lesion should be examined well and OLP should also be consider in the diagnosis. Histopathological confirmation is much important and long term follow up for these patient is mandatory.

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