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**Case Report**

# Oral lichenoid eruption due to habitual areca chewing in a child: A case report

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**Abstract**
Oral lichenoid reactions are one of the most common white lesions of the oral mucosa. Etiology is due to hypersensitivity reactions mainly caused by drugs, dental materials, and contact sensitivity to different substances. These lichenoid eruptions have similar appearance with lichen planus both clinically and histologically. Even though it is a common entity, appearance of such lesion in children is rarely reported. So, in this case report we are describing the lichenoid eruption in 6 years old boy who had a habitual history of areca chewing. Hence, the presence of etiology was duly the differentiating point from lichen planus in this patient.



## INTRODUCTION

The term oral lichenoid lesion (OLL) is used to describe eruptions of the oral cavity having an identifiable etiology, which are clinically and histologically similar to oral lichen planus (OLP). In the literature, different terms are used to refer to these lesions. OLLs have sometimes been considered as part of OLP, and have also been described as contact allergies, oral lichenoid lesions, contact lesions, or oral lichenoid reactions (OLR) [1].

The term OLR was proposed by Finne in 1982 to designate clinically indistinguishable lesions of OLP in which a specific etiological factor (mercury in Finne's original description) can be inferred and/or demonstrated and to differentiate this from the generically idiopathic OLP [1].

## CASE REPORT

A 6 years old boy presented with the chief complaint of burning sensation in the right and left buccal mucosa for past 5 days. Patient's grandmother gave history of areca chewing habit and patient learned this habit by watching her. There was no relevant medical history. On oral examination, there was a white lesion in both the mucosa. The lesion measured approximately 12-15 mm with interlacing striae resembling reticular pattern with surrounding erythema and pigmentation. (figure 1,2) There were no cutaneous lesions. So a clinical diagnosis of oral lichenoid reaction was given. Patient and his parents were counseled regarding the consequences of the habit. Patient was followed up for 3 months and there was complete resolution of the lesion with pigmentation of oral mucosa.(figure 3,4)

## DISCUSSION

Lichen planus is a relatively common, often clinically distinctive, mucocutaneous condition with an uncertain etiology. One variant of lichen planus is the so-called 'lichenoid drug eruption'.[2] Lichenoid manifestations are a fairly common finding in the oral cavity. Their etiopathogenesis is not quite clear, however, they are

most commonly considered an immunopathological reaction to various etiological factors such as pharmaceuticals, graft vs host disease reaction and contact reaction to dental materials [3]. Toothpaste flavorings, especially cinnamates, may also trigger lichenoid contact sensitivity reactions. In many cases, a cause for the oral lichenoid lesions cannot be identified and the diagnosis by exclusion is "idiopathic OLP" [4].



**Figure 1, Figure 2.** White lesion with reticular pattern in the right and left buccal mucosa with pigmentation and deciduous central incisor, lateral incisor and lower deciduous 1st molar.



**Figure 3, Figure 4.** Healing lesion after 3 months follow up with discolored left upper deciduous central incisor.

The clinical manifestations of contact hypersensitivity in the mouth vary from subjective difficulties such as burning, pain and dryness of the mucosa (burning mouth syndrome) to objective changes in the form of nonspecific stomatitis and cheilitis with reddish, edematous mucosae, erosions and ulcers. A more distinctive manifestation are lichenoid reactions usually localised on the buccal mucosa, tongue and lips. These chronic changes are most often associated with long-

term exposure of the oral mucosa to dental metals, and also to acrylates, composite materials, additives and other substances, which lead to the development of a delayed hypersensitivity reaction. The premalignant character of these lesions is a more recent finding.[3]

Any lesions discovered on the buccal mucosa and ipsilateral tongue is highly suggestive of hypersensitivity. Reactions to allergens can be Type I hypersensitivity (anaphylactoid reactions) or Type IV (delayed T-cell mediated hypersensitivity). These reactions can produce any combination of red and white tissue change. Patients are usually symptomatic and complain of sensitivity, burning, or mild pain. Withdrawal of the allergen produces resolution of the clinical reaction.[5]

Topographical relationship between the lesion and restoration is the main difference between OLL and OLP when the medical status and type of lesions were similar. If OLL is related to a causative factor, the removal of this factor may result in resolution of the clinical lesion. This contrasts with patients having OLP who may require palliative care and monitoring over many years. The premalignant nature of OLP is a major concern.[6] But such lesions in such a age is very uncommon. So pediatric age groups are very vulnerable to such uncommon habits in such a age group. So parents responsibility is utmost important in such patients and as a Dentist our role is to counseling regarding the severity of such lesions and even the habits.

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