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## **TOBACCO INDUCED LICHENOID REACTION**

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### ABSTRACT:

The oral mucosa may present clinical features of a certain conditions similar to those observed in lichen planus called lichenoid reaction. The pathological feature resembles that of lichen planus. The pathologist requires the indication of a cause – effect relationship by the clinician in order to provide a diagnosis of lichenoid reaction. This condition is treated by removal of the causal factor. Here we report a case of lichenoid reaction due to tobacco chewing habit in an 30 year old male patient. This case was reported from Yenepoya dental college, Yenepoya University, Mangalore, India.

**Key Words:** Lichenoid reaction, tobacco, habits.

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### INTRODUCTION:

The oral mucosa may present different types of clinical and microscopic alterations similar to Lichen planus. One such condition is called as lichenoid reaction. These conditions are triggered by various systemic or topical causative agents. The etiology of Lichenoid reaction is related to the contact with specific agents, such as restorative materials, drugs, and tobacco habits [1]. One such sensitivity reaction is known as lichenoid reaction.

The first microscopic features are discussed in 1973 and term lichenoid reaction was introduced in 1986[2,3]. He described the features as destruction of basal cell layer due to hydropic degeneration causing consequent interruption in the basal membrane Pathologists use the terms “lichenoid mucositis” or “chronic mucositis with lichenoid features’. The reason for this is because there are not enough distinctive features that make the lichenoid reaction a definitive diagnosis for true lichen planus. Therefore, the diagnosis may be lichen planus or a lichenoid reaction

depending upon how clearly consistent the features may be in a tissue sample [4].

The ethical clearance for the publication of the case report was obtained from the Yenepoya University Ethics Committee.

**Case report:** A 30-year-old male patient presents with a complaint of burning sensation of left buccal mucosa of 1 month duration. Personal history indicates that he has habit of chewing areca nut since last two years.

Frequency of the chewing habit was four to five quids per day. He usually keeps the betel quid in the left buccal sulcus approximately two to three hours after chewing.

On examination an erythematous area interspersed with white striac and blackish pigmentation was observed on the left buccal mucosa [Figure 1].



Figure 1 – White striations and pigmentation with eroded areas on the left buccal mucosa

The lesion was non scrapable and tested negative for Candida. A provisional diagnosis of Tobacco induced Oral Lichenoid Reaction was made. Habit counselling was done and the patient was advised to stop the quid chewing habit. The patient was asked to report back two weeks later. He reported with a relief of

symptoms. Another review conducted after 3 months showed complete clinical healing of the lesion.

#### DISCUSSION:

Few lichenoid reaction cases are reported due to the contact of cobalt, nickel, gold, palladium,

due to corrosion of the amalgam restorations and after placement of orthodontic arch-wires [5,6]. Few studies also suggested lichenoid reactions with a characteristic microscopic aspect associated with the habit of chewing gum or eating candies with cinnamon flavor, with disappearance of symptoms when the habit was discontinued [1].

Tobacco induced lichenoid lesions are mostly involving buccal mucosa or the tongue and they are unilateral in nature because these are the sites of betel quid retention. These lesions usually resolve after cessation of the habits. Lichenoid reaction is a mucocutaneous condition with multiple etiologies ranging from silver amalgam contact to quid chewing habit. Accurate identification of the etiologic agent helps in arriving at the appropriate diagnosis and hence is considered to be most important factor in treatment planning.

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