



## CASE REPORT

### Clinical case report on Smokeless Tobacco Keratosis

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#### Abstract

Smokeless tobacco keratosis is a condition that causes thick white patches to form on mucosa with common sites are inner cheek , in between teeth & gums , appear wrinkled in texture usually develops in between 1-5 years of tobacco use. Educating and motivating a patient is very important in the prevention as well as cure of STK.

**Keywords:** Tobacco, STK, Keratosis.

## 1 | INTRODUCTION

Habitually chewing tobacco leaves or dipping snuff results in the development of a well-recognized white mucosal lesion in the area of tobacco contact, called smokeless tobacco keratosis (STK) (1). It is also known as Snuff dippers' keratosis (2) or snuff dipper's lesion (3). Smokeless tobacco keratosis is a condition that causes thick white patches to form on mucosa in mouth. Mucosa may also be wrinkled or look like leather. The patches form where a person hold tobacco in mouth. Common sites may include your inner cheek and between your teeth and gums. Smokeless tobacco keratosis is also called tobacco pouch keratosis or snuff dipper's lesion.

## 2 | CASE PRESENTATION:

A patient aged 28 years came in dental office with the complaint of discoloration of teeth & a rough surface in his left lower vestibule. Otherwise he did not experience any pain or burning sensation or any discomfort. On taking the history of patient we get to know about that patient is a chronic heavy smoker

as well as he is keeping khaini (tobacco) in the left lower vestibule since 10 years. On an average he keeps khaini 4 to 5 times a day and also do cigarette smoking.

On intraoral examination there were heavy calculus with grade 3 stains , the area where he usually keep khaini there was the recession of gums in tooth region of 36 & there was lesion on the buccal mucosa and vestibule with respect to same tooth region & extending to left lower 2<sup>nd</sup> premolar as well left lower 2<sup>nd</sup> molar. Lesion was yellowish-white, wrinkled in appearance. There were also pits & fissure caries on lower molars , and tooth 46 was missing due to the extraction because of caries. Oral hygiene was also poor , he was having halitosis too. His overall oral hygiene was poor with halitosis. Oral prophylaxis/ scaling was done. He was prescribed with 2% CHX

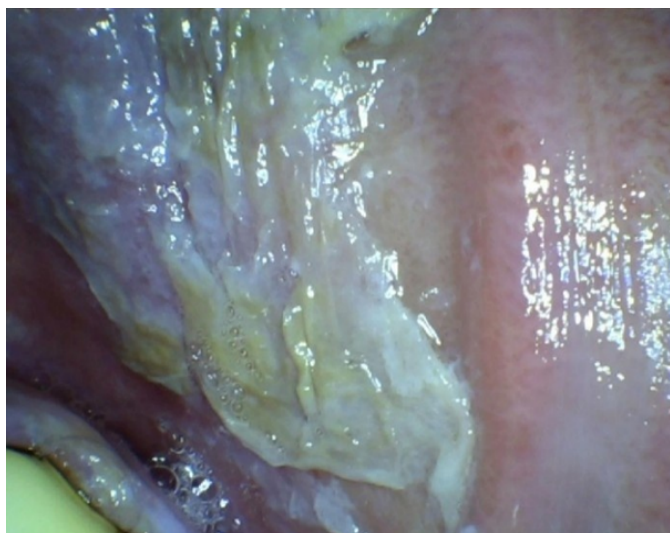
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mouthwashes, Septilin syrup three times a day for 2 weeks for periodontal health. The patient was educated about harmful effects of using tobacco, and advised him to gradually stop taking tobacco in both forms smokeless as well as smoking, he was also advised to take balanced diet rich in vitamins-minerals and was asked to follow-up after 1 month.



**FIGURE 1:** Clinical picture of patient – Tobacco Pouch Keratosis

### 3 | BRIEF DESCRIPTION STK:

Chewing of tobacco leaves or leads to the development of a white mucosal lesion in the area of tobacco contact, usually called smokeless tobacco keratosis, snuff dipper's keratosis, or tobacco pouch keratosis. While these lesions are accepted as pre-cancerous, they are significantly different from true leukoplakia and have a much lower risk of malignant transformation. The mucosal alterations which are caused by Smokeless tobacco, as it contains several carcinogens like N-nitrosornicotine (NNN), being one of them, is dependent on duration of exposure. (4–6).

STK typically occurs in the buccal sulcus or the labial sulcus and corresponds to the site where the tobacco is held in the mouth. It is usually painless. It takes tobacco about 1-5 years of smokeless use for the lesion to appear (7). Along with white changes of the oral mucosa, there may be gingival recession and staining of tooth roots in the area where the tobacco is held. (7)

Diagnosis is mainly clinical, based on the history and clinical appearance. In contrast to pseudomembranous candidiasis, this white patch cannot be wiped off. (7) Tissue biopsy is sometimes carried out to rule out other lesions, although biopsy is not routinely carried out for this condition. Histologically, the epithelium is hyperkeratotic and thickened. (1)

Only treatment is to stop the tobacco habit. No other treatment is indicated (2). Long term follow-up is usually carried out. Some recommend biopsy if the lesions persist more than 6 weeks after giving up smokeless tobacco use (7). Surgical excision may be carried out if the lesion does not resolve. (7) Proper balanced diet rich in vitamins and other minor nutrients that are helpful for healing processes also important as a view of clinical practice.

### 4 | RESULTS

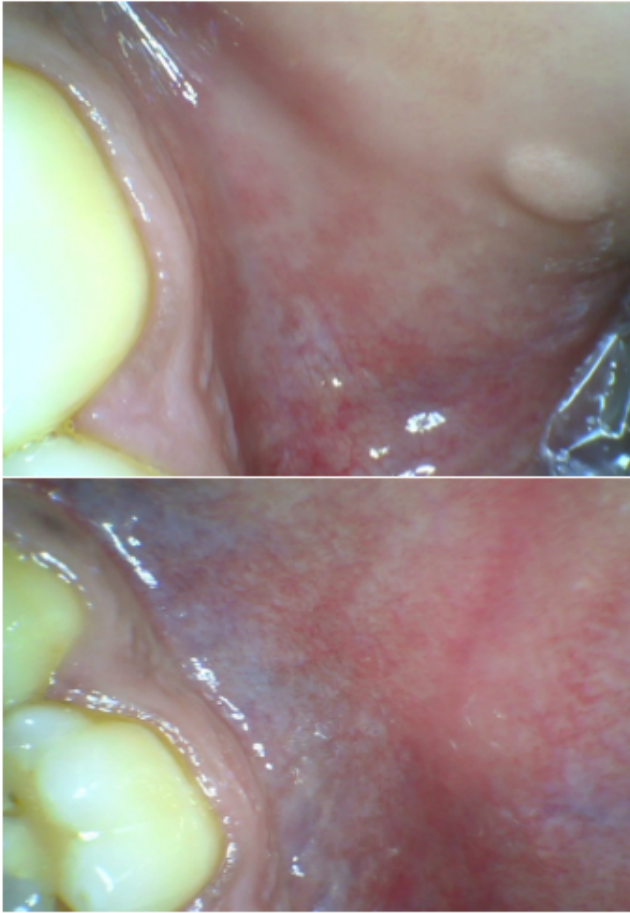
Patient was called for followup after 1 month, and there was progress in regression of the lesion after the cessation of tobacco use. Here are the clinical pic of oral vestibule after 3 months that show complete healing in the lesion area.

### 5 | CONCLUSION :

Tobacco cessation is only therapy for the management of STK, thus it is necessary to educate and motivate about the ill effects of chewing of tobacco. Tobacco and nicotine products can also increase your risk for other health conditions, such as oral cancer, lung and heart disease.

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**FIGURE 2:** Clinical Picture - Regression of the lesions investiture area.

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