Tobacco Pouch Keratosis in a young individual: A brief description

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Abstract:
Smokeless tobacco is used orally or nasally without burning tobacco. This is equally harmful as smokers due to the tobacco content and can cause oral cancer as well as systemic effects such as nicotinic dependence. Many other oral conditions have also been reported in association with smokeless tobacco. This paper presents features of tobacco pouch keratosis and aims to highlight the oral effects of smokeless tobacco, management, and guidelines for dentists in educating and counselling tobacco users.

Key words:
Actinic, counseling, dentists, keratosis, tobacco smokeless, tobacco use disorder

INTRODUCTION

Tobacco pouch keratosis or smokeless tobacco-induced keratosis is the development of a white mucosal lesion in the area of tobacco contact. The lesion develops on habitual chewing or snuff dipping tobacco. The lesion is precancerous, and dentists must educate the patient about the harmful effects of tobacco and motivate the patient to stop the habit. Here, we highlight oral manifestation of a young male patient diagnosed with tobacco pouch keratosis.

CASE REPORT

A 22-year-old male patient visited our outpatient clinic for a complaint of discomfort while eating, drinking, and speaking. The patient further added that on self-examination he felt a rough surface texture in his left upper vestibule. He did not experience any pain, burning sensation, or dysgeusia. His habit history revealed the use of tobacco since 5 years in combination with areca nut and betel leaf. He assembles all the ingredients in a quid form and keeps in his left vestibule for a span of 4–5 h and then spits out. On an average, he chews 2–3 quids a day. He does not consume any alcohol. His medical history was non-significant and did not take any medications.

On intraoral examination, a grayish-white plaque was evident on his left upper vestibule extending from distal surface of left canine to his upper first molar [Figure 1]. The borders were diffuse. Few parts of the lesion showed yellowish encrustations which were deposits of the ingredients used in the quid. On palpation, the lesion had a wrinkled, thickened, and corrugated surface texture. However, his right vestibule appeared normal. Gingival recession was evident, and his teeth showed tobacco stains and some showed abrasion. His overall oral hygiene was poor with halitosis. As a part of comprehensive treatment plan, scaling was done. He was prescribed with mouthwash for the maintenance of oral hygiene. The patient was educated about the ill-effects of using smokeless tobacco, and we advised him to gradually stop the habit and was asked to follow-up after 1 month.

DISCUSSION

This case illustrates tobacco pouch keratosis diagnosed in a young individual. This condition is best described as the development of a well-recognized white mucosal lesion in the area of tobacco contact. The lesion is seen in smokeless tobacco chewers. The term smokeless tobacco is derived from the fact that tobacco is not burned in this habit unlike smoking. Many synonyms such as snuff dipper’s keratosis and smokeless tobacco keratosis have been proposed for this condition. A brief description on the types of smokeless tobacco is shown in Table 1.

The most common location for tobacco pouch keratosis is in the lower anterior vestibule followed by posterior vestibule. The lesion...
appears thickened and corrugated, and as the condition worsens, it becomes more leathery. Literature reveals that this condition has been established as a risk factor for developing oral carcinoma. However, they are said to have a lower risk of malignant transformation when compared to leukoplakia. Chronic use of smokeless tobacco can result in nicotinic dependence. Further, researchers have proved that use of tobacco during adolescence can disrupt brain circuits and affects cognitive abilities, attention deficits, and psychiatric disorders.

Many carcinogens have been found in smokeless tobacco and the major causative agent being tobacco-specific nitrosamines, and other agents include nitrosamino acids, polycyclic aromatic hydrocarbons, aldehydes, and different types of metals. In addition to the risk of oral cancer, smokeless tobacco has been associated with the development of gingivitis, gingival recession and attachment loss, halitosis, reduction of taste, and abrasion of teeth. However, there was no evidence of taste disturbances in our patient.

The Tobacco and Cancer Program of the National Cancer Institute recommends that all health-care professionals follow the 5As guidelines to aid in successful intervention of educating and counselling tobacco users [Table 2].

Management of tobacco pouch keratosis includes complete cessation of tobacco chewing habit and follow-up to assess resolution. If the patient is not willing to stop the habit, we can ask the patient to switch the site of chewing, and hence, a temporary relief and resolution can be made. In around 98% of patients, oral mucosa resumed to normal within 2 to 6 weeks after stopping the habit. A biopsy should be performed if there is any evidence of erythema or ulceration to rule out dysplasia or carcinoma. Nicotine replacement therapy such as nicotine gum and nicotine patches can be delivered to such patients which acts as a substitute.

CONCLUSION

Dental professionals play a vital role in early identification of tobacco-related conditions. As this condition is more prone for malignant transformation, such conditions should not be neglected and the patient has to be educated about the harmful effects of habitual chewing of smokeless tobacco, and preventive measures can be taught for a better quality of life.

Declarations of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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