



Tobacco Pouch Keratosis In A Young Individual – A Case Report

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Abstract

Worldwide, >1 billion individuals use tobacco products, but the prevalence varies considerably by sex and geography.¹ Although tobacco use was previously more common in high-income countries, the burden has now shifted to low- and middle income countries, where an estimated 80% of today's smokers live.² Nicotine is a highly addictive, naturally occurring chemical found in tobacco. 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).^{4,5}

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Introduction

Tobacco use causes >6 million annual deaths globally and is the leading preventable cause of death worldwide.^{1,2} 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).^{4,5} It is also known as Snuff dippers' keratosis⁶ or snuff dipper's⁷. The incidence and the severity of the lesions depend on the dose-response, which is depending on the quantity, duration and frequency of the habit. The health effects of smokeless tobacco use are of considerable research and public health interest. The lesion develop on chewing tobacco on regular basis.

Here, we focus on quitting habit tobacco of a young male patient diagnosed with tobacco pouch keratosis.

Case-Report

A patient aged 23 year old male came in dental office with chief complaint of pain in the upper left back

region of the jaw. In tissue abuse habit the patient had a habit of gutkha chewing which he claims to have quit 2 years ago and is a tobacco chewer since 4 years. He chews tobacco 10-15 times a day for 5- 10 minutes and places the quid in the lower left buccal vestibule and then spits it off. He does not consume any alcohol. His medical history was non-significant and did not take any medications.

On intraoral examination, a single grayish white non-scrapable patch of about 2x2 cm on the lower left buccal mucosa and vestibule, extending from 35 to 38 region. The patch was a wrinkled appearance. His overall oral health was poor with halitosis. As a part of comprehensive treatment plan, scaling and light cure composite restoration 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 6 month.

Tobacco induced keratosis lesion extending from 35 to 38 region (Initial)



Picture showing lesion after 3 months



Tobacco cessation counselling

A 5 day plan to get ready to quit

A) Quit date minus 5 list all the reasons to quit tobacco, inform family friends about quitting of tobacco, stop buying cartons of tobacco.

B) Quit date minus 4 advised to think new ways to relax (Spent time with family, games), hold something in mouth and in hand instead of tobacco (Dry-fruits, fruits) and habits or routine you may want to change. (Yoga, exercise)

C) Quit day minus 3 advised to take use of things you could do with extra money you save

D) Quit day minus 2 advised to clean clothes to get rid from smell of tobacco.

E) Quit day minus 1 advised to think of reward you will get yourself after you quit, get your teeth cleaned, throw away all your tobacco products.

F) Quit day advised to keep yourself busy, praise yourself, change your routine when possible, and do the things which don't remind you to use tobacco.

Non-pharmacological cessation strategies:

Tapering - Cut down the number of tobacco each day until the client finds they are no longer using it.

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| 5 A's Intervention |
| Ask - Document status of tobacco use at every visit |
| Advice – Advice to quit tobacco habit |
| Assess – Motivation to quit, |
| Assist – Aid the patient in quitting |
| Arrange – Schedule follow – up contact, either in person or via the telephone. |

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| 4 D's Intervention |
| Delay – Wait out the urge to smoke. It will pass in a few minutes. |
| Drink water – Sip the water slowly and hold it in your mouth awhile. |
| Deep breathing – Breathe in slowly and as deeply as you can then breathe out slowly. Repeat this five times. |
| Distract – Talk to a friend focus on the task doing get up and move around. Do something that takes your mind off smoking for few minutes. |

According to systems coping strategy used for patient

| SYMPTOM - COPING STRATEGY |
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| Irritability - Walk, hot bath, relaxation |
| Fatigue - Take sleeps, exercise |
| Insomnia - Avoid caffeine after 6pm |
| Cough - Drink plenty of fluids, cough drops |
| Nasal Drip - Drink plenty of fluids |
| Dizziness - Change positions slowly |
| Lack of Concentration - Plan workload, avoid stress |
| Constipation - Add fiber to your diet |
| Gas - Add fiber to your diet |
| Hunger - Low calorie snacks |

Craving for tobacco - Wait out urges, distract yourself, drink water, read, exercise

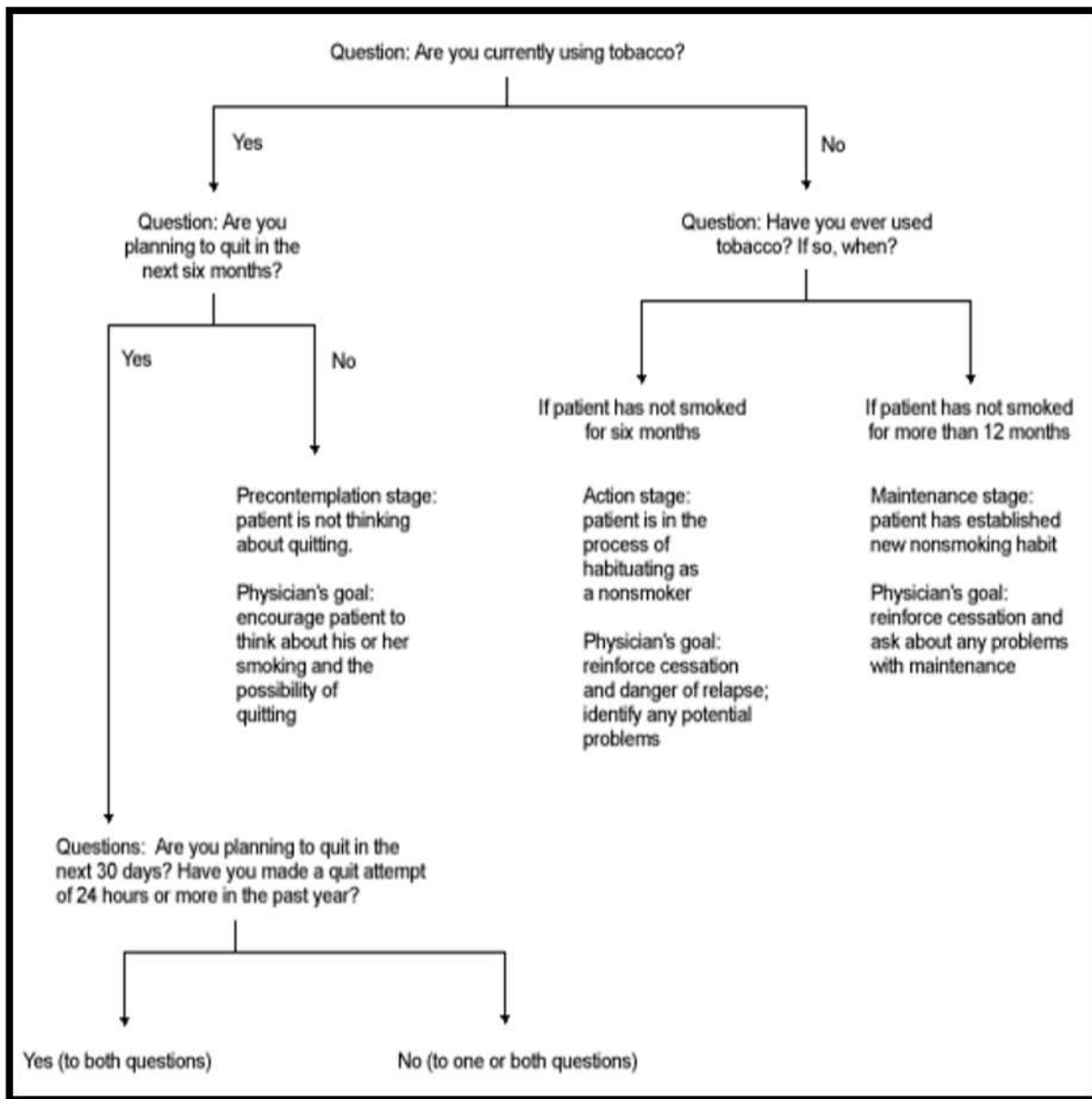
Headaches - Drink plenty of fluids, and relaxation, eat a small snack

Picture showing lesion after 6 months



Discussion

1. Tobacco is the most commonly abused drug in the world. The most susceptible time for initiation of tobacco use in India is during adolescence and early adulthood, in the age group of 15-24 year.⁸
2. Worldwide, nearly, all (88%) initiation to tobacco use occurs before the age of 18 year. Among every three young tobacco users, only one will quit and one of the remaining tobacco users will die of tobacco-related causes.⁹
3. In India, it is estimated that about five million children under the age of 15 are tobacco users.⁹
4. 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.¹⁰
5. 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.¹¹
6. 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.¹¹



Cessation Method

A. Non-pharmacological cessation

- Tapering
- 5A's - Ask, Advise, Assess, Assist, Arrange
- 4 D's: Delay, Distract, Drink water, Deep breath.
- 5 R's – Relevance, Risk, Reward, Road block, Repetition.
- Cold turkey

B. Pharmacological methods

- Nicotine patch

- Nicotine gum
- Nicotine inhaler
- Nicotine nasal spray
- Bupropion

Role of the dentist

- In the clinic, dentists have an important role in helping patients to quit tobacco and, at the community and national levels, to promote tobacco prevention and control strategies.

Dentists in the clinic

- See the harmful effects of tobacco in the mouth.

- Reinforce patient in discontinuing tobacco use by showing them the actual effects in the mouth and promote oral health and healthy lifestyles among their patients.

❑ Dentists in the community and nation

- Can speak with authority in the community about the dangers of tobacco use.
- Example, the need to control tobacco use in public and educate children about the dangers of tobacco use.

Can be effective supporters for tobacco control in the community.

Conclusion

Oral cancer continues to be a deadly disease for more than 50% of the cases diagnosed every year. This is due to the fact that most of these cases are diagnosed when they have already progressed to the advanced stage. Detection of oral cancer in its initiation phase is important as there is a direct correlation between survival and the stage of the disease at the time of diagnosis. Also early detection provides the patient with the best opportunity for successful management and positive cure and is crucial to improve the patient's survival rate.

References:

1. GBD 2015 Tobacco Collaborators. Smoking prevalence and attributable disease burden in 195 countries and territories, 1990–2015: a systematic analysis from the Global Burden of Disease Study 2015. *Lancet* 2017;389:1885–906.
2. World Health Organization. Tobacco. Available at: <http://www.who.int/mediacentre/factsheets/fs339/en/>. Accessed August 6, 2023.
3. Kalkhoran S, Benowitz NL, Rigotti NA. Prevention and Treatment of Tobacco Use: JACC Health Promotion Series. *J Am Coll Cardiol*. 2018 Aug 28;72(9):1030-1045.
4. Burket's Oral Medicine & Treatment, 10th ed
5. Thakur D.V., Kaur D.M., Jassal D.S. Clinical case report on Smokeless Tobacco Keratosis. *Journal of Current Medical Research and Opinion*. 2020;649-51.
6. Scully C (2013), oral maxillofacial medicine : the basis of diagnosis , 3rd ed
7. Oral & maxillofacial pathology – Elsevier health sciences
8. Patel AS, Damor RD. A cross section study on tobacco consumption practice in school going adolescent male of Jamnagar city, Gujarat, India. *Int J Community Med Public Health* 2018;5:933-8.
9. Zhou J, Michaud DS, Langevin SM, McClean MD, Eliot M, Kelsey KT. Smokeless tobacco and risk of head and neck cancer: Evidence from a case-control study in New England. *Int J Cancer* 2013;132:1911-7.
10. Walsh PM, Epstein JB. The oral effects of smokeless tobacco. *J Can Dent Assoc* 2000;66:22-5.
11. Tobacco Use and Dependence Guideline Panel. Treating Tobacco Use and Dependence: 2008 Update. Rockville (MD): US Department of Health and Human Services; 2008. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK63952/>. [Last accessed on 2023 Apr 15].