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Original Article

Assessment of incidence of occurrence of Oral Mucosal Lesions among Tobacco Users: A Clinical Study

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ABSTRACT

Background: Chewing Tobacco is one of the common practices in Asian Subcontinent. Varies studies in the past literature have quoted higher incidence of occurrence of oral mucosal lesions among tobacco chewers. Hence; we planned the present study to assess the incidence of oral mucosal lesions among tobacco users of known population. **Materials & methods:** The present study included assessment of incidence of oral mucosal lesions among tobacco users of known population. A total of 200 subjects were screened in the present study.All the patients were given a self-framed questionnaire for getting the information in relation to the habit history. Clinical examination of all the patients was carried out. All the results were compiled and analyzed by SPSS software. **Results:** A total of 200 subjects were screened in the present study. The overall incidence of Tobacco associated oral mucosal lesions in the present study was 12.5 percent. These oral mucosal lesions were more common among subjects with history of more than 5 years of tobacco chewing. **Conclusion:** Incidence of occurrence of oral mucosal lesions increases with increase in duration of the tobacco chewing habit.

Key words: Incidence, Oral lesions, Tobacco.

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INTRODUCTION

Oral mucosal lesion (OML) is known as any abnormal alteration in color, surface aspect, swelling, or loss of integrity of the oral mucosal surface. Although a proportion of OMLs are benign and require no active treatment, some may present with significant pathology. Of particular importance are oral potentially malignant disorders which may progress into malignancy.[1- 3] Besides, OMLs can interfere with daily quality of life in affected patients through impacts on mastication, swallowing, and speech with symptoms of burning, irritation, and pain. OMLs have many etiologies as bacterial or viral or fungal infections, local trauma or irritation, systemic diseases, and excessive consumption of tobacco, betel quid, and alcohol.[4, 5]

Chewing Tobacco in traditional form is consumed as betel quid mixture of areca nut, slaked lime, and flavoring agent wrapped in betel leaf and tobacco commercial preparations (TCPs) such as gutka, zarda, khaini, mishri, etc., contain the pieces of areca nut coated with powdered tobacco, sweetening and flavoring ingredients in addition to other spices such as saffron, cardamom, etc. which are very popular and highly addictive.[6- 7]

Hence; we planned the present study to assess the incidence of oral mucosal lesions among tobacco users of known population.

MATERIALS & METHODS

The present study was planned in the department of oral medicine of the dental institute and it included assessment of incidence of oral mucosal lesions among tobacco users of known population. Ethical approval was obtained from the institutional ethical committee and written consent was obtained from all the subjects after explaining in detail the entire research protocol. A total of 200 subjects were screened in the present study. Exclusion criteria for the present study included:

- Patients with history of any systemic illness,
- Patients with any known drug allergy,
- Patients with presence of any other muco-cutaneous lesion

All the patients were given a self-framed questionnaire for getting the information in relation to the habit history. Clinical examination of all the patients was carried out. All the results were compiled and analyzed by SPSS software.

RESULTS

A total of 200 subjects were screened in the present study. Mean age of the patients of the present study was 48.2 years. All the subjects were habitual tobacco chewers. Among these 200 subjects, 150 subjects were males, while the remaining 50 subjects were females. Oral mucosal lesions were found to be present in 25 subjects in the present study. Therefore, the overall incidence of Tobacco associated oral mucosal lesions in the present study was 12.5 percent. These oral mucosal lesions were more common among subjects with history of more than 5 years of tobacco chewing.

Table 1: Incidence of oral mucosal lesions associated with tobacco chewing

Parameter	Number of subjects	Percentage
Incidence	25	12.5

Table 2: Correlation of Incidence of oral mucosal lesions with history of tobacco chewing

History of tobacco chewing	Number of subjects	Percentage
Less than 5 years	10	5
More than 5 years	15	7.5

DISCUSSION

Tobacco in India was introduced some 400 years ago by Portuguese by establishing tobacco trade based in Goa. India is world's third largest tobacco growing country and Bidi manufacturing is the largest tobacco industry in India.[9] In the present study, a total of 200 subjects were screened. Mean age of the patients of the present study was 48.2 years. All the subjects were habitual tobacco chewers. Among these 200 subjects, 150 subjects were males, while the remaining 50 subjects were females. Chandra P et al determined the prevalence of oral mucosal lesions associated with tobacco among patients visiting the dental hospital. A selection of 1525 patients visiting the Department of Oral Medicine and Radiology were interviewed regarding tobacco habits. Examination of the oral cavity was performed by trained examiners under good illumination using diagnostic instruments. Oral mucosal lesions were diagnosed based on the clinical features. The patients were divided into groups based on their tobacco habits. Out of 1525 patients, 359 patients (23.5%) had the habit and 265 (73.8%) of them had oral mucosal lesions. Leukoedema was the most prevalent lesion. Leukoplakia was found in 3.5% of the patients. Malignancy was found only among chewers.Nearly three-quarters of the patients with the tobacco habit had oral mucosal lesions. This emphasised that routine examination of oral mucosa is important and that the patients must be motivated to quit this harmful habit.[10]

In the present study, oral mucosal lesions were found to be present in 25 subjects. Therefore, the overall incidence of Tobacco associated oral mucosal lesions in the present study was 12.5 percent. These oral mucosal lesions were more common among subjects with history of more than 5 years of tobacco chewing. El Toum S et al determined the prevalence and distribution of oral mucosal lesions of patients attending the School of Dentistry.A descriptive study was carried out by retrospectively examining a total of 231 medical and clinical examination record files of patients, attending the School of Dentistry Lebanese University for multidisciplinary dental treatments. 178 medical records were retained. Each medical and clinical examination record was done by an undergraduate student and then evaluated by a doctor. The record file included a civil status, chief complaint, medical history, and extraoral and intraoral clinical examination during the period between October 2014 and May 2015. Exclusion criteria were lack of written information in their medical and clinical examination record and being non-evaluated by a doctor. Data regarding age, gender, socioeconomic status, chief complaint, systemic diseases, and drugs intake were collected by using a questionnaire while the type of extraoral and oral mucosal lesions by clinical examination.The sample consisted of 102 (57.3%) females and 76 (42.7%) males. The age ranged from 10 to 92 years with a mean age of 40.1 years. Among these subjects, 110 (61.8%) presented with one or more lesions. All patients were Lebanese. The most common lesion diagnosed was coated/hairy tongue affecting 17.4% of the subjects, followed by melanotic macule (11.2%), gingivitis (9.6), linea alba (6.2%), tongue depapillation (5.1), leukoplakia (5.1), traumatic fibroma (4.5), frictional keratosis (3.9%), fissured tongue (3.9%), hemangiomas (3.9%), Fordyce granules (3.9%), dry mucosa (3.4), angular cheilitis (2.2), gingival hyperplasia (2.2), and crenulated tongue (1.7%). Overall, the prevalence of oral mucosal lesions did not significantly differ between sex and age groups. The high prevalence of oral mucosal lesions necessitates adequate awareness and management of these lesions in the general population.

CONCLUSION

From the above results, the authors conclude that incidence of occurrence of oral mucosal lesions increases with increase in duration of the tobacco chewing habit. However; further studies are recommended.

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