



**CASE REPORT OF ORAL SUBMUCOUS FIBROSIS IN A 14 YEAR
OLD PATIENT.**

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ABSTRACT

Oral submucous fibrosis is a chronic debilitating disorder usually seen in adults and most commonly due to habit of areca nut chewing. Nowadays, the younger generations also started consuming areca nut and its products, which results in more number of affected children. This is a great concern for the Society and the Government. Though oral submucous fibrosis is common in the Indian subcontinent, but only a few cases have been reported in the pediatric age group. The

present article reports a case of oral submucous fibrosis in a 14 year old male patient.

KEYWORDS: Areca nut, Gutkha chewing, Oral submucous fibrosis, Pediatric patient.

INTRODUCTION

Oral submucous fibrosis (OSMF) is a highly debilitating insidious chronic disease affecting the large population of the Indian sub-continent.^[1] It affects the mucosa of any part of the oral cavity and occasionally extending into the pharynx and esophagus.^[2]

OSMF has been well documented in Indian medical literature since the time of Sushruta—who was a renowned Indian physician lived in the era 2500-3000 B.C.² OSMF was first described by Schwartz JJ in 1952 as “Atrophica idiopathica mucosa oris” in Kenya, followed by Joshi SG in 1953 in India.^[3]

OSMF is characterized by inflammation and progressive fibrosis of the submucosal tissues of the different parts of the oral cavity and even the pharynx at times.¹ It results in marked rigidity and progressive inability to open the mouth. It is a precancerous condition, and there is a positive correlation between OSMF and the development of white lesion of leukoplakia and carcinoma of the oral cavity.^[1,4,5]

OSMF is a disease of adults, but recently it is found also in children.^[4] The present article described a case report of OSMF in a 14 year old male patient.

Case report

A 14 year old male patient reported to the department with a complaint of reduced mouth opening and burning sensation in the mouth since 2 to 3 months. Patient was having habit of areca nut and Gutkha chewing since last 4 to 4^{1/2} years. The patients was used to chew areca nut and Gutkha 6 to 7 times daily. On examinations, it was found that the mouth opening was reduced to 20 mm (measured with the help of standard steel scale). Intraoral examination shown blanching in both buccal mucosa extending from corner of mouth to the retromolar pad area posteriorly. (Fig. 1 and 2) Blanching was also seen in soft palate area and uvula was found to be shrunken. On palpation, thick fibrous bands were palpated both buccal mucosa, lips and floor of mouth area.

On the basis of all the clinical findings, a diagnosis of oral submucous fibrosis was made and further treatment was advised to the patient.

Figure legends



Fig. 1: Clinical photograph of the oral submucous fibrosis patient showing blanching of right buccal mucosa as well as decreased mouth opening.



Fig. 2: Clinical photograph of the oral submucous fibrosis patient showing blanching of left buccal mucosa.

DISCUSSION

Oral submucous is a precancerous condition with high risk and is predominantly found in South Asian population. Previous literature shown a predisposition in females with a ratio of women to men of 3:1.^[6]

OSMF is characterized by burning sensation in the mouth, particularly while eating hot and spicy food, followed by vesicle formation, ulceration and stomatitis. This is usually followed by a stage of submucous fibrosis in which fibrous tissue deposition occurs in the oral submucosal layer resulting in disabling effects like inability to open the mouth and protrude the tongue.^[7-10]

Though the etiology for OSMF is multifactorial, the major etiological factors includes areca nut chewing, nutritional deficiencies and genetic predisposition.^[10,11] It has been researched that OSMF is caused due to the action of chemical compound arecoline, which is found in areca nut and its products. Arecoline stimulates fibroblast proliferation and collagen synthesis, and also decreases its breakdown by forming more stable collagen structure. So there is more collagen availability leading to OSMF.^[3,12,13] Betel nut contains tannin and copper and these have ability to stabilize collagen by cross- linking it. So more Collagen is provided at the site.^[3]

In children from the lower socioeconomic strata or marginalized communities of India, areca nut and its products are more commonly used. Noticeably, it has been observed that the highest period of risk for engaging in areca nut alone is children between the ages of 5 and 12.^[4]

The change of the trend in the OSMF in children may be due to consuming of areca nut and its products that is coming in the market with different multicolored attractive pouches and they are easily available in each and every corner of the road.^[4]

Steps must be taken at the society level by creating awareness among the general public about the hazardous nature of areca nut products by appropriate health messages through various educational campaigning in the community, in the schools, in newspapers (especially local language) and in the multimedia. Legislation has to be passed to ban the sale of supari to very young children. In addition, educational training of primary school teacher is also essential as they were also concerned many times with children.^[3,4,7]

It is important to find out new ways to motivate and encourage areca nut users to quit. Delivery of brief cessation advice at every opportunity and advocate for the inclusion of training of cessation techniques in dental school curricula as well as in the continuous education programs of their respective professional bodies.^[3,4,7]

Prevention of onset of areca nut and its products use and intervention programs in the early stage are essential on priority basis to bring adequate behavioral change in children especially in major areca nut consuming states of India. Also future research is needed to examine several dimensions of predictors of subsequent areca nut use in children.^[3,4,7]

CONCLUSION

The present case report describes oral submucous fibrosis in childhood. However, dental health professional should be reminded of this condition since it may be seen more commonly in the future, and an active preventive approach is required to children to hopefully limit the potential development of such oral lesions.

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