e-ISSN: 2248-9126
Vol4 |Issue 2 | 2014 | 113-115. Print ISSN: 2248-9118

Indian Journal of Pharmaceutical Science & Research

www.ijpsrjournal.com

A CASE REPOT ON ORAL SUBMUCOUS FIBROSIS

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ABSTRACT

Oral submucous fibrosis (OSMF) is a chronic, insidious, disabling disease involving oral mucosa, the oro-pharynx, and rarely, the larynx. A case report of oral submucous fibrosis occurring in a 55 year old man is presented. This article tells the etiology, clinical presentation and treatment of oral submucous fibrosis. This case report not only highlights the link between oral submucous fibrosis and the regular use of areca-nut and the newer trans-cultural oral tobacco products but also tells us about its harmful effects. The case report underlines the danger that human face with products which are clearly targeted at them by the tobacco industry.

Keywords: Oral Submucous fibrosis, Areca-nut, Irritants, Nutrition etc.

INTRODUCTION

Oral sub mucous fibrosis (OSMF) is a chronic, insidious, disabling disease involving oral mucosa, the oro-pharynx, and rarely, the larynx [1]. It is exclusively reported in Indian population.The disease is characterized by blanching and stiffness of the oral mucosa, trismus, burning sensation in the mouth, hypo-mobility of the soft palate and tongue, loss of gustatory sensation, and occasionally, mild hearing loss due to blockage of Eustachian tube [2]. A variety of etiological factors including capsaicin, betel nut alkaloids, hypersensitivity, autoimmunity, genetic predisposition and malnutrition have been suggested by various authors [3]. It has also been suggested that it is a nonspecific inflammatory reaction to trauma yet the exact etiology is still unknown.The disease can be classified clinically into two phases [4]. An eruptive phase characterized by formation of erythema, vesicles, ulceration and a burning sensation in the mouth. The fibrosis induction phase, characterized by the disappearance of the vesicles and healing of the ulcers by fibrosis. The burning sensation decreases and blanching and stiffness of the oral and oro-pharyngeal mucosa occur [5].

Case Reports: A 55 year old man came to us with a chief complain of difficulty in opening the mouth since 1 year. He started having burning sensation over the mucous membrane on right side with spicy food and smoking 3 years back. Since then he was having restricted movements of the cheek on right side. Patient was a chronic smoker for the last 20 years and was smoking about 15-20 cigarettes per day. There was no history of any other skin lesion or other mucosal involvement and no significant medical history was present. On examination, the mucous membrane on right side (Fig. 1) was smooth, shiny and pale while on left side it was normal. On palpation, the mucous membrane of right cheek was firm and there was a fibrous band extending from the buccal aspect of molar area upto the angle of mouth. Oro-dental hygiene was poor but all the teeth were intact. The movements and opening of the mouth was reduced on the right side. All the routine investigations were normal. Biopsy from right buccal mucosa showed atrophy of the stratified squamous epithelium. In the juxta-epithelial part there were present fibrous bands which were suggestive of OSMF.

DISCUSSION

Areca-nut is mostly chewed throughout India as pansupari. The mixture is held adjacent to the buccal

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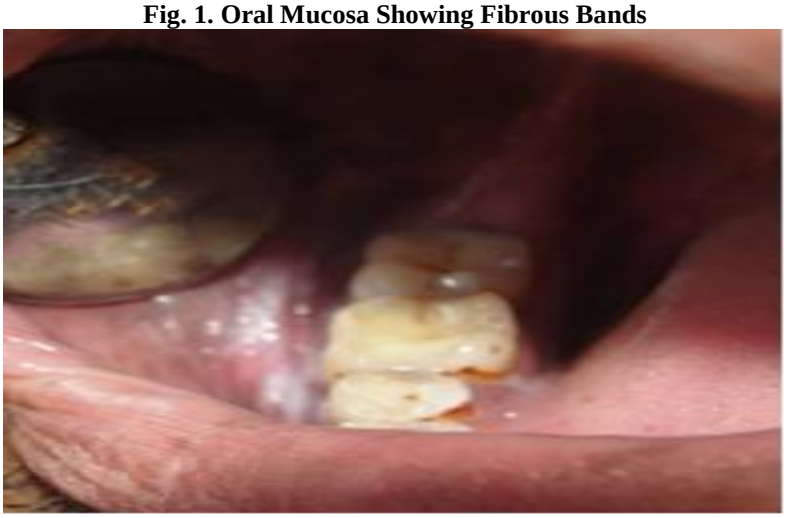
mucosa and slowly chewed over a long period of time [6]. Tissue culture studies using human fibroblasts by Harvey, suggests that areca-nut alkaloids, particularly acroline and arecaidine, were involved in causing OSMF [7]. Furthermore it was demonstrated that extracts of areca-nut stimulated collagen synthesis by 170% over the control studies. Many other experimental studies have also shown a strong correlation between OSMF and areca-nut chewing. Oral submucous fibrosis is one of the most poorly understood and unsatisfactorily treated diseases. The importance of this disease lies in its inability to open the mouth and dysphasia giving rise to malignancy. The incidence of malignant change in patients with OSMF ranges from 2 to 10%.The younger the age the more rapid is the progression of the disease. All the available treatments give only symptomatic relief, which too is short lived.Areca nut chewing, tobacco smoking and hypersensitivity to chilies are the precipitating/causative agents in genetically predisposed patients [8]. So habit restriction should be there in clinically suspected cases, to retard the disease process and as it is a pre-malignant condition, there is need for careful observation and follow up in each and every case. Irritant components like capsaicin are also important factor in this. Sirsat and Khanolkar investigated the effect of capsaicin, a component of chili peppers, on the palates of Wister rats and noted a limited connective tissue response, although this was increased when the animals were vitamin B12 deficient. Iron and vitamin B12 deficiency has been implicated particularly in conjunction with other factors [9]. In 1919 Paterson and Brown-Kelly independently described the condition of chronic dysphagia and mucosal atrophy in women who had chronic anaemia – this was later termed sidero-penicanaemia or Brown- Kelly-Paterson Syndrome and has the potential for cancerous change in the oro-pharynx [10].

Fig. 1. Oral Mucosa Showing Fibrous Bands



CONCLUSION

OSMF described in the present article was difficult to manage in part caused by the continuous tobacco consumption and poor oral hygiene maintenance. He was found to be a poor attender and this worsened the monitoring and managing the earliest stages of the condition difficult. It appears that the OSMF is likely to worsen since he would not be able to stop the ingestion of areca-nut. If the condition does worsen, he may in the long term need surgical intervention with grafting and there is always the possibility of malignant change and therefore close monitoring of his oral mucosa is essential for his betterment and healthy life.

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