ISSN: 0975-833X

Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 9, Issue, 02, pp.47214-47217, February, 2017

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

RESEARCH ARTICLE

AN AWARENESS STUDY ON ORAL SUBMUCOSAL FIBROSIS AMONGST THE GENERAL PUBLIC OF CHENNAI

***Nadhirah Faiz**

First Year BDS, Saveetha Dental College, 162, Poonamalle High Road, Vellapanchavadi, Chennai, Tamil Nadu 600095

ARTICLE INFO

Article History:
Received 23rd November, 2016
Received in revised form
17th December, 2016
Accepted 05th January, 2017
Published online 28th February, 2017

Key words:
Oral Cavity,
Fibrosis,
Premalignant Lesion,
Areca Nuts.

ABSTRACT

AIM & OBJECTIVE: To assess the awareness amongst the general public of chennai on oral submucosal fibrosis.
MATERIALS & METHOD: A questionnaire consisting of 12 questions on the topic, oral submucous fibrosis,was constructed and circulated amongst the general public of Chennai. The data retrieved from the survey was processed using Microsoft Excel.
BACKGROUND: People are not aware of potentially malignant disorders of the oral cavity and hence don't take adequate measures to prevent it from occurring. It is important to assess and understand the level of knowledge of the participants and create the awareness so that there is an initiative taken to reduce the likeliness of occurring.
REASON FOR THE PROJECT: Oral submucosal fibrosis is a chronic, progressive disease that is becoming more predominant in South India due to the habits of the people. One of the main causes is excessive chewing of betel quid and Areca nuts. Oral submucosal fibrosis is also a disease which could progress into a malignancy of the oral cavity if left untreated for a period of time, or if there is continuous chewing of betel quid or areca nut combined with the effects of smoking and drinking.
RESULT: The awareness of the public of Chennai on oral submucosal fibrosis is studied.

Citation: Nadhirah Faiz, 2017. "An awareness study on oral Submucosal fibrosis amongst the general public of Chennai", *International Journal of Current Research*, 9, (02), 47214-47217.

INTRODUCTION

Oral submucosal fibrosis is a chronic, premalignant lesion found in the oral cavity (Pillai *et al*., 1992). It is an insidious disease affecting the pharynx occasionally and any part of the oral cavity (Lemmer, 1967). The prevalence of oral sub mucous fibrosis is in South East Asia. OSMF is caused due to the chewing of Areca catechu nuts and betel quid (Sirsat, 1967). The alkaloids of Areca nut such as arecoline and arecaidine, its hydrolyzed product, can cause the stimulation of proliferation and collagen synthesis based on the dosage (Sirsat, 1967; Wahi, 1966). Schwartz was the first person to describe the condition in 1952 while examining five women of Indian origin from Kenya, to which ascribed the term "atrophia idiopathic (tropica) mucosae oris" (Schwartz, 1962). It was termed as oral sub mucous fibrosis at a later stage (Joshi, 1953). Other names given for the disease are: "juxta-epithelial fibrosis", "diffuse oral sub mucous fibrosis", "idiopathic palatal fibrosis and "idiopathic scleroderma of the mouth" (Pindborg, 1966). Oral submucous fibrosis is associated with and/or preceeded by vesicle formation (Pindborg, 1964).

****Corresponding author: Nadhirah Faiz,***
First Year BDS, Saveetha Dental College, 162, Poonamalle High Road, Vellapanchavadi, Chennai, Tamil Nadu 600095.

The disease is associated with juxta-epithelial inflammatory reaction which is then followed by hyalinization of the lamina propria (Sirsat, 1967). In the next stage, there is myofibrosis of subepithelium and submucosal layer which progresses to the stiffness of oral mucosa with inability to open the jaws, also known as trismus, thus leading to the difficulty in degluttition, phonation and eating (Wahi, 1966). In the advanced stage of oral submucosal fibrosis, there will be epithelial atrophy displayed (Pillai, 1992). Oral submucous fibrosis is an oral precancerous state. The definition according to WHO of a precancerous condition of the oral cavity is a generalized pathological condition of the oral mucosal layer which is associated with a significant increased level of risk of cancer (World Health Organization, 1980). Oral cancer has been found to be the fifth most commonly found cancer world wide (Parkin *et al*., 1993). The malignancy rate of transformation of oral submucous fibrosis was reported to be 19 times more than in people without any lesions in Pakistan (Merchant *et al*., 2000). For the people who are addicted to the agents causing oral submucous fibrosis, interventions to quit the habit are necessary. In addition to this, chemopreventive agents such as green tea, retinoids and NSAIDS are administered (Garewal , 1994; IUSHNCC , 1997; Papadimitrakopoulou , 1997; Lin *et al*., 2002).

Even though there was response to the treatment, on termination of the treatment, it was found that there was recurrence of OSMF due to the continuation of the habit (Sankaranarayanan, 1997).

METHODOLOGY

A structured, multiple choice questionnaire of 12 questions was constructed to conduct a survey on the awareness of oral sub mucous fibrosis. The area of prevalence, the cause of the disease, the effect of the disease on the oral cavity, malignancy rate of the disorder, treatment and further complications of the disorder and what it would lead to were the guidelines along which the questionnaire was constructed. The questionnaire was circulated amongst the general public of Chennai. A sample size of 250 people was taken from different age groups and different course of professions and education. The participants volunteered to be a part of the survey. The data was entered into Microsoft Excel and processed.

RESULTS

Q1) Which age group do you belong to?
1. 0-20years 2. 20-30 years 3. 30-40years. 4. 40-50years. 5. 50above

Q2) Along which stream is your current course/profession ?
1. Medical/dental. 2. Law. 3. Engineering. 4. Commerce

Q3) Have you ever heard about oral submucosal fibrosis before this ?
1. Yes. 2. No

Q4) What do you think is the effect of oral submucosal fibrosis in oral cavity ?
1. Normal movements of jaw. 2. Inability to open the jaws. 3. Halitosis(Bad breath)

Q5) What do you think is the causative agent of this disorder ?
1. Alcohol 2. Chewing Areca nuts. 3. Chewing betel quid.
4. Chewing Areca nuts and betel quid

Q6) Where do you think this disease is of prevalence ?
1.South East Asia. 2. United States of America. 3. Indonesia

Q7) What type of disease is oral submucosal fibrosis ?
1. Acute lesion 2. Chronic, progressive lesion

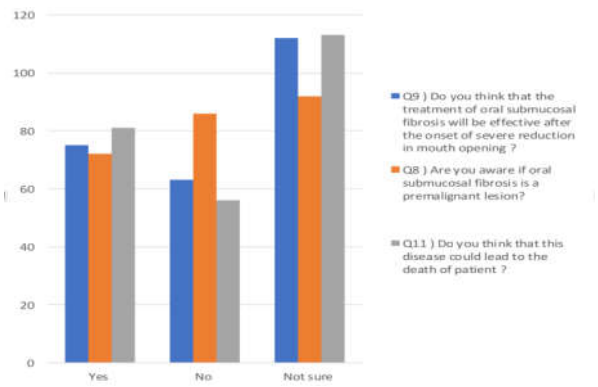
Q8) Are you aware if oral submucosal fibrosis is a premalignant lesion?
1. Yes. 2. No. 3. Not sure

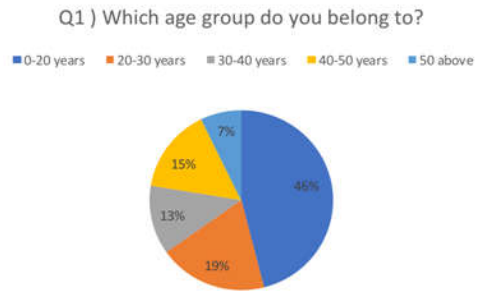
Q9) Do you think that the treatment of oral submucosal fibrosis will be effective after the onset of severe reduction in mouth opening ?
1. Yes. 2. No. 3. Not sure

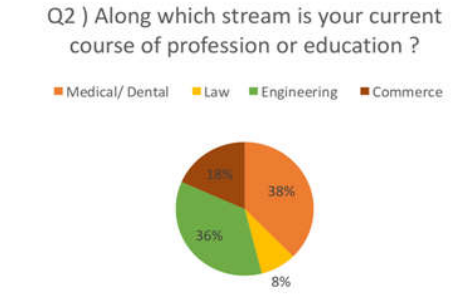
Q10) In case of an early diagnosis, what treatment do you think will be given ?
1. Abstaining from alcohol and chewing habits. 2. Surgery

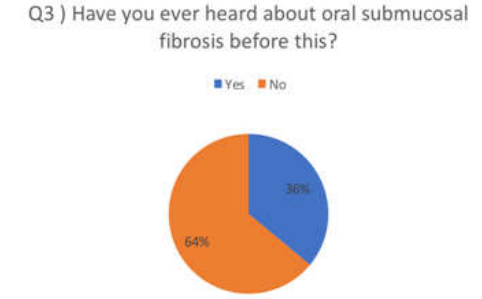
Q11) Do you think that this disease could lead to the death of patient ?
1. Yes. 2. No. 3. Not sure

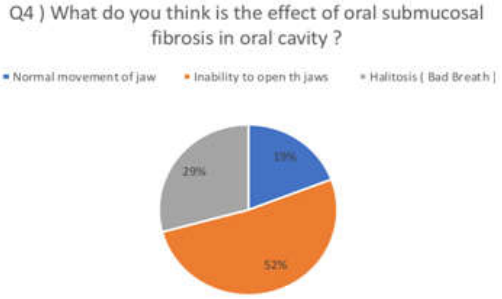
Q12) Which gender, in your opinion, are more affected by oral submucosal fibrosis?
1. Males. 2. Females

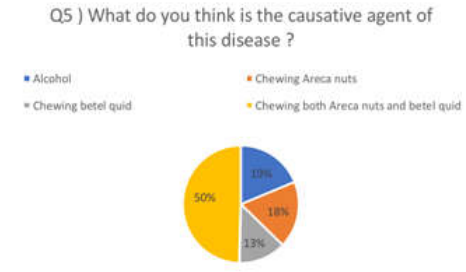


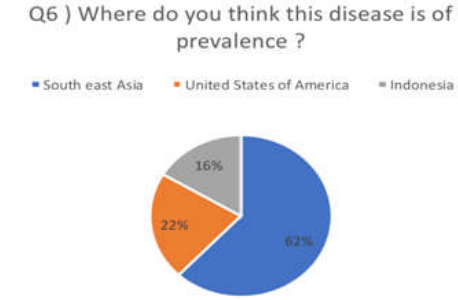












DISCUSSION

Of the 250 participants in the survey, 46% of the participants belong to the age group of 0-20 years. 36% of the participants have a background in medical/dental field while 38% are of the engineering field. Only 64% of the participants have heard of the disease oral submucous fibrosis. The effect of oral sub mucous fibrosis, trismus, the inability to open the jaws, was known by only 52% of the participants. 50% of the 250 volunteers were aware of the cause of oral sub mucous fibrosis being chewing of Areca nuts and betel quid. South east Asia is the location of OSMF prevalence and 62% of the volunteers were aware of this.

A similar study was conducted in Mahmoodabad and Karachi where the children were interviewed using a structured questionnaire which was precoded on the practices and knowledge on the topic of chhaalia and paan masala chewing and the data obtained was entered into SPSS software and analyzed. The questionnaire included questions of the frequency of use, procurement of the substance, reasons for starting of the habit and practices amongst friends and family members. A sample size of 370 students between the ages of 10 to 15 years were interviewed. Of the 370, 165 of the participants were females. Mahmoodabad and Karachi areas are multi ethnic population region and low socio economic areas where the monthly income has been to be an average of 5000-6000. 31% of the fathers and 62% of the mothers were uneducated. More than 80% of the students in the survey were using the substances with the awareness of the family of such consumption. It was found that it is due to the easy availability of the substances and social acceptance of the habit that there is high frequency of the habit. Initiation of the habit started because of the low cost, taste, usage by family and friends and relief of hunger. Less than 45% of the participants knew of the adverse effects of the substances.

Conclusion

There is a level of understanding on the topic of oral submucous fibrosis amongst the participants of the survey. But the amount of knowledge is limited. It is important that the disease awareness is created and spread as the disease has a high malignancy rate and will lead to oral cancer which ultimately will lead to death of the patient. To prevent the prevalence of oral submucous fibrosis, there has to be some methods of increasing the awareness conducted. As dentists, they can talk to patients about the causes and effects to help decrease the amount of prevalence of the disease. Posters, awareness camps in schools and big corporate organizations, awareness marathons and advertisements in social media and television can be conducted to increase the awareness in a large scale.

REFERENCES

Canniff, J.P. and Harvey, W. 1981. The aetiology of oral submucous fibrosis: the stimulation of collagen synthesis by extracts of areca nut. *Int. J. Oral Surg.* , 10, 163–167.

Garewal, H. 1994. Chemoprevention of oral cancer: beta-carotene and vitamin E in leukoplakia. *Eur. J. Cancer Prev*. 3, 101–107.

Harvey, W., Scutt, A., Meghji, S. and Canniff, J.P. 1986. Stimulation of human buccal mucosa fibroblasts in vitro by betel-nut alkaloids. *Arch. Oral Biol.* , 31, 45–49.

IUSHNCC 1997 Green tea and leukoplakia. The Indian–US Head and Neck Cancer Cooperative Group. *Am. J. Surg.* , 174, 552–555.

Joshi, S.G. 1953. Submucous fibrosis of the palate and pillars. *Ind. j. otolaryn*., 4: 1-4.

Lemmer, J., Shear, M. 1967. Oral submucous fibrosis: a possible case in a person of Caucasian descent. *Br. dent. j*., 122; 343-346.

Lin, D.T., Subbaramaiah, K., Shah, J.P., Dannenberg, A.J. and Boyle, J.O. 2002. Cyclooxygenase-2: a novel molecular target for the prevention and treatment of head and neck cancer. Head Neck , 24, 792–799.

Merchant, A., Husain, S.S., Hosain, M. *et al*. 2000. Paan without tobacco: an independent risk factor for oral cancer. *Int. J. Cancer* , 86, 128–131.

Papadimitrakopoulou,V.A. and Hong, W.K. 1997. Retinoids in head and neck chemoprevention. *Proc. Soc. Exp. Biol. Med.* , 216, 283–290.

Parkin, D.M., Pisani, P. and Ferlay, J. 1993. Estimates of the worldwide incidence of eighteen major cancers in 1985. *Int. J. Cancer* , 54, 594–606.

Pillai, R., Balaram, P., Reddiar, K.S. 1992. Pathogenesis of oral submucous fibrosis. Relationship to risk factors associated with oral cancer. *Cancer*. Apr 15;69(8):2011-20.

Pindborg, J.J., Singh, B. 1964. Formation of vesicles in oral submucous fibrosis, *Acta path. microbiol. scand*., 62:562-566.

Pindborg, J.J., Sirsat, S.M. 1966. Oral submucous fibrosis. Oral surg. *oral med. oral pathol*, 22: 764-779.

Sankaranarayanan, R., Mathew, B., Varghese, C. *et al*. 1997. Chemoprevention of oral leukoplakia with vitamin A and beta carotene: an assessment. *Oral Oncol*. 33, 231–236.

Schwartz, J. 1962. Atrophia idiopathica (tropica) mucosae oris. Demonstrated at the Eleventh International Dental Congress, London, 1952 (cited by Sirsat & Khanolkar). *Ind. j. med. Sic*., 16 ; 189-197.

Sirsat, S.M., Pindborg, J.J. 1967. Subepithelial changes in oral submucous fibrosis. *Acta path. microbiol. scand*., 70:161-173.

Wahi, P.N. *et al*. 1966. Submucous fibrosis of the oral cavity: histomorphological studies. *Br. j. cancer*, 20: 676-687.

World Health Organization. Guide to epidemiology and diagnosis of oral mucosal diseases and conditions. Community dent. oral epidemiol. 1980, 8: 1-26.

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