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Awareness Of Ill Effects Of Tobacco And Opportunistic Screening For Oral Cancer In Patients (Consuming Tobacco In Any Form) Attending Urban Health Centre Of K.J.Somaiya Medical College And Research Centre.

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Abstract:- *In India tobacco is consumed in smoked and smokeless form. It is a proven fact that tobacco consumption leads to oral cancer. The pre cancerous lesions can be detected for up to 15 years prior to their change to invasive carcinoma. Intervention at this stage may result in regression of the lesion. In spite of knowing the history of tobacco addiction, the health care personnel do not make an attempt to examine the oral cavity of the patient and counsel on the various ill effects of tobacco on health. Hence the department of Community Medicine conducted a cross-sectional study in individuals (consuming tobacco in any form) attending the outpatient department of urban health training centre located in Pratiksha nagar, Sion, Mumbai with following objectives 1) To assess the awareness of ill effects of tobacco consumption on health 2) To assess proportion of patients willing to quit consumption of tobacco.3) To clinically examine the patients for oral precancerous lesions. 4) To assist patients willing to quit tobacco consumption.5) To teach oral self examination.40 subjects (75.47%) were aware of the fact that tobacco consumption leads to ill effects on health. On oral cavity examination of the study subjects, 3(5.66%) were detected with leucoplakia*.

Keywords:– *Ill effects of tobacco, Precancerous lesions, screening*

I. Introduction

In India tobacco is consumed in smoked form as well as the smokeless form. The most common form of tobacco is the betel quid which usually consists of betel leaf, arecanut, lime and tobacco called as paan in local language. The other common form is to rub dried flakes of tobacco and slaked lime in the palm of hand and keeping this mixture called as khaini into the mouth in small amounts. [1] The other common form is gutkha. 90 percent of cases in South East Asia are linked to tobacco chewing and tobacco smoking. Oral cancer is a major problem in India. The results of a 10 year follow up study of 30,000 individuals in three districts Ernakulum (Kerala), Srikakulum (Andhra) and Bhavnagar (Gujarat), indicated that oral cancer and precancerous lesions occurred almost solely among those who smoked or chewed tobacco and oral cancer was almost always preceded by some type of precancerous lesion . The natural history of oral cancer shows that often a precancerous stage precedes the development of oral cancer. [2, 3] The pre cancerous lesions can be detected for up to 15 years prior to their change to an invasive carcinoma. Intervention at this stage may result in regression of the lesion. [4]

To make the people aware of the ill effects of tobacco, intensive health education is provided to the community through various media like television, radio. Many a times though aware about the ill effects of tobacco consumption, individuals find difficulty in quitting tobacco. Doctors too in spite of being aware of the history of addiction of tobacco consumption in the patient do not make an attempt to counsel the patient to quit tobacco consumption as well as examine the oral cavity for precancerous lesions. Therefore the department of Community Medicine incorporated the concept of screening for oral cancer in individuals (consuming tobacco in any form) attending the outpatient department (OPD) of urban health training centre located in Pratiksha nagar, Sion, Mumbai. The objectives were to

1. To assess the awareness of ill effects of tobacco consumption on health in patients consuming tobacco in any form.
2. To assess proportion of patients willing to quit consumption of tobacco.
3. To clinically examine the patients for oral precancerous lesions.
4. To assist patients willing to quit tobacco consumption.
5. To teach oral self examination.

II. Subjects And Methods

2.1 Study design: Cross-sectional

2.2 Study subjects: Patients attending the OPD at urban health training centre who were currently consuming tobacco in any form

Inclusion criteria: Patient who was currently consuming tobacco in any form.

Operational definition for current user: History of use of tobacco in any form in the past 30 days.

Exclusion criteria: Patient who was not willing to participate

2.3 Sample size: The sample size was calculated using formula n= $4pq/L^2$, [5] where n: estimated sample size, p: proportion of awareness of ill effects of tobacco among patients currently consuming tobacco =72%, [6] q: 100-p = 28, L: 20% of p =14.4 thus after calculation n = 38.8 .Considering 20% non response, the sample size (n) = 47

2.4 Sampling method: Convenient sampling

2.5 Study period: 3 months, Jan to March 2016

2.6 Materials and methods: Patients attending the OPD at urban health centre were asked about history of current consumption of tobacco in any form. Patients were invited to participate in the study. After taking the informed written consent, patients were interviewed with the help of pretested questionnaire. Details about socio-demographic factors, consumption of tobacco, awareness of ill effects on health due to tobacco consumption, willingness to quit tobacco were obtained. B.G.Prasad's classification for socio-economic status was used. [7]This was followed by clinical examination of oral cavity and health education on the various ill effects of tobacco consumption in any form, on an individual basis with the aid of flipchart. They were taught how to do oral self examination .The patients were counseled about the benefits of quitting tobacco. The patients were referred to psychiatry OPD of K.J.Somaiya Medical College and Research Centre for deaddiction. Patients detected with precancerous lesion or oral cancers were referred to surgery OPD for treatment and management. The study was approved by the ethics committee of the institute.

2.7 Statistical analysis: The data was entered in Microsoft excel and analyzed. The summarization of data was done using frequency, proportion.

III. Results

Total 53 subjects, were interviewed and examined**.** 23 (43.4%) were males and 30 (56.6%) were females. Table 1 shows the distribution of study subjects according to age, education and socio-economic status. From fig. 1 it is seen that 40 subjects (75.47%) were aware of the fact that tobacco consumption leads to ill effects on health. Fig. 2 shows that majority of the women consumed tobacco in the form of masheri (70%), most of the men consumed tobacco flakes with slaked lime(52.17%) and with betel leaf called as paan in local language (26.09%). With regards to awareness of specific ill effects it was found that 34 (64.15%) and 8(15.09%) subjects were aware that tobacco consumption causes oral cancer and lung cancer respectively.(Fig. 3) 39 (73.58%) subjects had tried to quit tobacco consumption but had a difficulty in doing so. Table2 shows distribution of study subjects according to the awareness of ill effects of tobacco and willingness to quit. After educating the subjects on various effects on health caused by tobacco consumption, 46 (86.79%) expressed a desire to quit tobacco. Out of these 46 subjects only 26(56.52%) were ready to undergo counseling for tobacco deaddiction.

On oral cavity examination of the study subjects, 3(5.66%) were detected with leucoplakia, and 2(3.77%) with decreased inter incisor distance. In 5 subjects (9.43%) the buccal mucosa where tobacco quid was placed, was found to be roughened and in 3(5.66%) subjects slight white feathery lesions were seen. (Fig. 4) These subjects were referred to the surgery for management and psychiatry outpatient department for deaddiction. All the subjects were advised to quit tobacco. The importance of oral self examination was explained to the subjects and the technique was taught to them.

IV. Discussion

In the present study majority were aware about the adverse effects like oral cancer and lung cancer. Very few knew that it also causes ill effects like laryngeal and esophageal cancer. One of subjects stated that it causes stomach cancer and blood cancer .None of them was aware that it also causes chronic bronchitis, peripheral vascular disease and cardiovascular disease. (Fig. 3)This finding is consistent with studies conducted in Kerala. A study conducted in Thiruvananthapuram district of Kerala, revealed that only 10 % were aware that tobacco causes cardiovascular diseases. [8] Another study in same district carried by Tiwari R et al found that 22.5 % were aware of ill effects of tobacco on cardiovascular system. [9] 46 (86.79%) expressed a desire to quit tobacco. This percentage is more as compared to study conducted by NS Surani et al in Maharashtra and Bihar where 32.5% users expressed the intention to quit tobacco. [10] Another study conducted by Lalit J Raute et al reported that 38% of smokeless tobacco users had intention to quit. [11] A positive finding of this study was

that 39 (73.58%) subjects had tried quitting tobacco in the past and currently 46 (86.79%) were willing to quit tobacco.

V. Figures And TABLES

Table 1: Distribution of study subjects according to age, education, socio-economic status.

Age	no	%
20 to 29	3	5.66
30 to 39	9	16.98
40 to 49	12	22.64
50 to 59	13	24.53
≥60	16	30.19
Total	53	100
Education	no	%
Illiterate	13	24.53
Literate	2	3.77
Primary	10	18.87
Secondary	17	32.08
SSC	9	16.98
HSC	1	1.89
Graduate	0	0
Post graduate	0	0
Missing value	1	1.89
Total	53	100
Socio-economic status	no	%
I Rs ≥ 5571	4	7.55
II Rs 2786-5570	17	32.07
III Rs 1671-2785	18	33.96
IV Rs836-1670	7	13.21
V Rs <836	7	13.21
Total	53	100

Table 2: Distribution of study subjects according to the awareness of ill effects of tobacco and willingness to quit

Knowledge of ill effects of tobacco consumption	Willingness to quit tobacco		Total
	Yes	No	
Yes	36(90%)	4(10%)	40(100%)
No	10(76.92%)	3(23.08%)	13(100%)

Chi-square test could not be applied with Yates correction as expected value in one of the cells is less than 5

Table 3: Distribution of study subjects according to the duration of tobacco consumption in years and presence of precancerous lesions.

After combining groups, cell frequency less than 5. Chi-square test could not be applied.

Duration of tobacco consumption in yrs	Precancerous lesions		Total subjects
	Yes	No	
< 10 yrs	1	11	12
10-19 yrs	2	10	12
20-29 yrs	0	8	8
30-39 yrs	0	11	11
40-49 yrs	2	4	6
50-59 yrs	0	1	1
≥ 60yrs	0	1	1
Missing values	0	2	2
Total	5	48	53

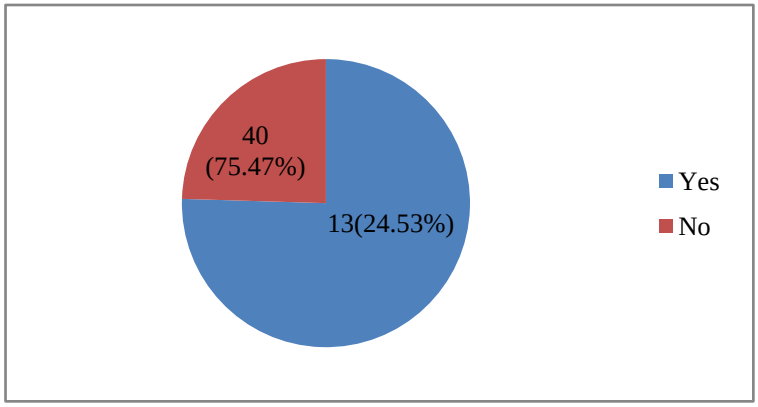

Fig 1: Pie diagram showing distribution of study subjects according to awareness of ill effects of tobacco

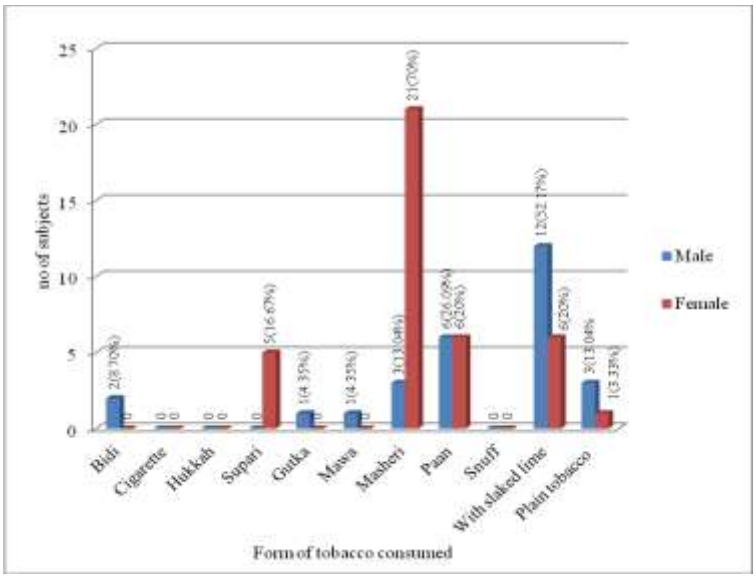

Fig 2: Bar diagram showing distribution of study subjects according to gender and form of tobacco consumed

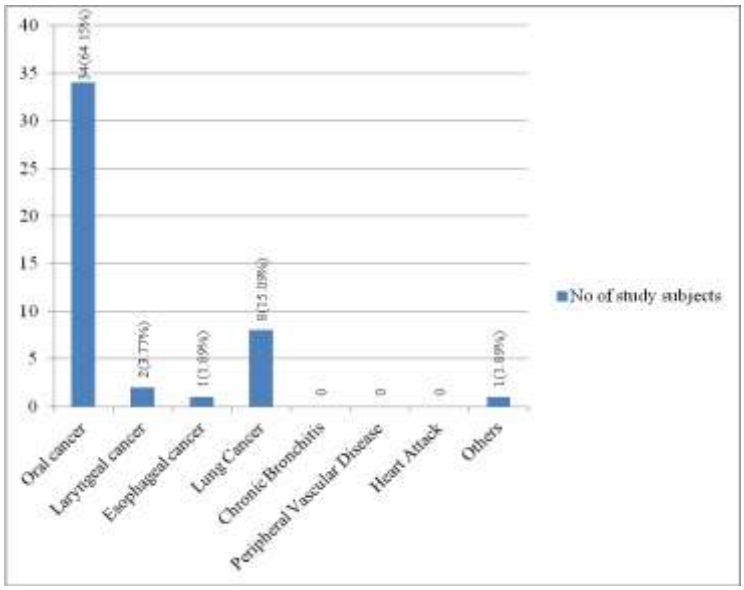

Fig 3: Bar diagram showing distribution of study subjects according to awareness of specific ill effects of tobacco consumption

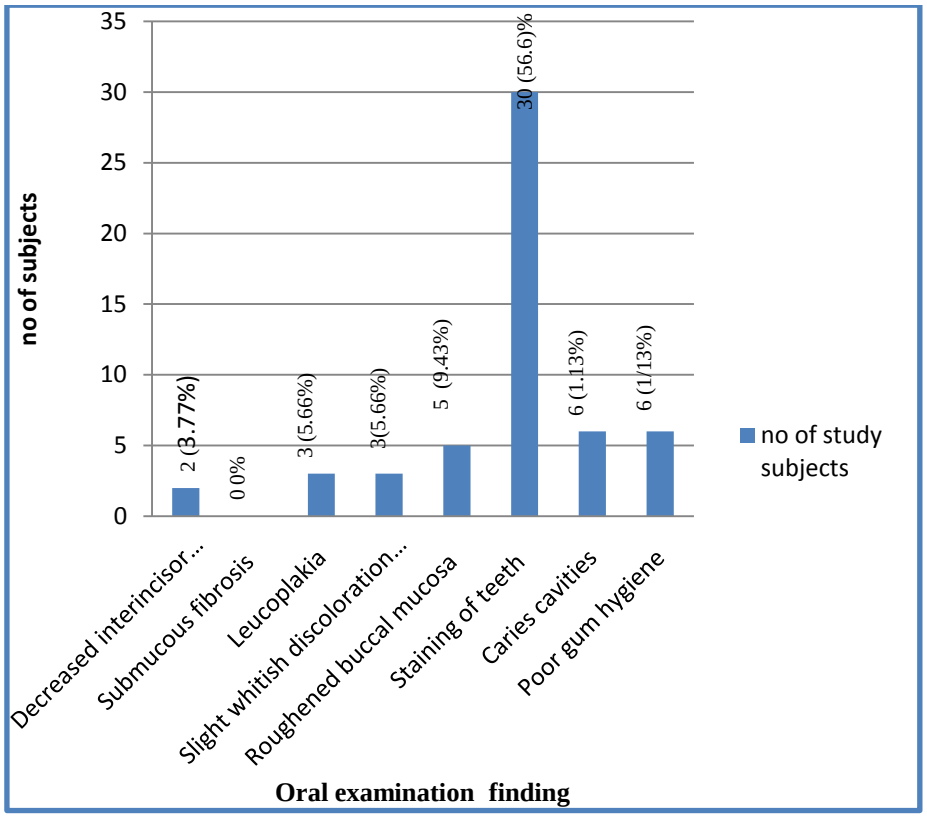

Fig 4: Bar diagram showing distribution of study subjects according to oral cavity examination finding.

VI. Conclusion

The present study highlights the need to create awareness among people about other ill effects of tobacco consumption such as cardiovascular diseases, chronic obstructive pulmonary disease and peripheral vascular disease and not just oral cancers. Counseling to quit tobacco needs to be emphasized by the healthcare personnel. Oral cavity is an easily accessible site for examination allowing early detection of oral precancerous and cancerous lesions. Minimal cost in terms of materials is required for examination- torch, gloves. Routine screening of individuals giving history of consumption of tobacco in any form, needs to be incorporated in the outpatient clinics leading to early detection of precancerous lesions.

Acknowledgements

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