

A Study of the Awareness of Oral Cancer and its Associated Risk Factors Amongst O.P.D. Attendees at a Teaching Hospital of Bhubaneswar, India

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ABSTRACT

Background: Oral cavity cancer is amongst the most prevalent cancers in India and incidence rates are higher in men than women. In India use of the smokeless tobacco product called gutkha /paan, is extremely popular especially in Northern part of India. Age-adjusted rates of oral cancer in India are high, which is, 20 per 100,000 population and accounts for over 30% of all cancers in the country.⁽²⁾ along with oral cancer there is high risk of sub-mucosal fibrosis causing sever morbidity and lifetime disability. Delayed presentation of oral cancer is mainly due to lack of awareness of the public about oral cancer and its associated risk factors. **Methods:** A cross section study was carried out in OPD of Medical Teaching Hospital and patients were accessed for their socio-demographic profile, awareness and knowledge about early signs of cancer. **Results:** Out of 450 participants 68% were male and rest females. Level of awareness about early signs of oral cancer was poor i.e. 35% where as 49% of studied population had one or more behavioral risk factor associated with oral cancer. Only 18% of participants who regularly take professional help for oral health; **Conclusions:** The awareness level is not satisfactory and presence of behavioral risk factor for oral cancer is significant among studied population. There is a need of IEC among general population about pre-cancerous / cancerous lesions and association of smoked / smokeless tobacco or alcohol with oral cancer.

Key words: Oral cancer, Awareness, OPD, Guthka, Paan , Bhubaneswar.

INTRODUCTION

Oral cavity cancer is amongst the most prevalent cancers worldwide and incidence rates are higher in men than women. Oral cancer contributes to 10 million new cases and more than 6 million deaths each year.^[1] an Age-adjusted rate of oral cancer in India is high, which is, 20 per 100,000 population and accounts for over 30% of all cancers in the country.^[2]

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Risk factor attributing to oral cancer is the chronic use of smoking tobacco, smokeless tobacco products and alcohol, which has both independent and synergistic effect in causing oral cancer risk. In South East Asia, the commonest way to use tobacco is smokeless tobacco in chewing form. 90% of smokeless tobacco users are from this region.^[3] In India, there is extremely popular use of the smokeless tobacco products called gutkha and paan, which renders its population, and especially its youth to a greater risk of developing oral sub-mucosal fibrosis, a premalignant condition resulting in the increased incidence of oral cancer in younger patients. Smokeless tobacco products and betel quid (Paan) with or without tobacco are the major risk factors for oral cavity cancer in India.^[4] The effect of chewing is greatest on the buccal mucosa and many studies have indicated a strong dose–response relationship with tumours of the oral cavity.^[5] Mouth cancer is largely preventable by avoiding known risk factors along with National and International guidelines to stress the importance of early detection.^[6] Early detection of oral pre-cancerous and cancer lesion have better outcomes compared

to any other neoplasm of head and neck. Delayed presentation of oral cancer is mainly due to lack of awareness of the public about oral cancer and its associated risk factors which also results in increased treatment morbidity and reduced survival rates. The study was carried out to find out awareness about oral cancer among OPD attendees in the Teaching Hospital of Bhubaneswar.

METHODS

A cross-sectional study was carried out in OPD waiting lounge of P.B. Memorial Hospital, Bhubaneswar to assess the level of awareness. The study was cleared by ethics committee of the institute and participation in this study was voluntary. The duration of study was for three months i.e. from Nov 2012 to Jan 2013. The participants were OPD attendees aged >18yrs along with their accompanying attendants.

The study used Non-Probability Sampling Technique. Exclusion criterias' were any suspected or known diagnosed cases of oral cancer. Sample size was calculated with assumption of awareness at 50%. Using formula $Z^2P(1-P)/d^2$ the adequate sample was 384. At the end of study, we were able to interview 450 voluntary participants. To access the information, a pre-designed, pre-tested and semi-structured questionnaire was used which was prepared in English and Odiya. The questions asserted their socio-demographic profile, awareness about Oral Cancer, knowledge about pre-cancerous lesions and their oral health seeking behavior. The data was entered and analyzed using Microsoft Office Excel Worksheet and Epi info 7.

RESULTS

Among all interviewed, there were 450 participants whose data were analyzed and tabulated. There were 306 (68%) males and rests were females.

Table 1:- Distribution of participants as per gender and age group

Age Group	Males	Females	Total (N=450)
18-30 yrs	49	23	72 (16%)
31 – 40 yrs	27	13	40 (8.9%)
41 – 50 yrs	116	33	149 (33.1%)
50 – 60 yrs	49	39	88 (19.6%)
>60 yrs	65	36	101 (22.4%)
Total	306	144	450 (100%)

Out of 450 participants 52(11.6%) were unmarried, 343 (76.2%) were married and rest 55(12.2%) were divorced/separated or widowed. Most the participants were into service 206 followed by people doing business. Most of the participants 379(84.2%) had heard about oral cancer. A small proportion of participants 48(10.7%) had misconceptions about it as to being untreatable, whereas 55(12.2%) had no opinion. 39(8.7%) of the interviewed thought it to be contagious. To evaluate the awareness, participants were assessed for basic sign and symptoms of pre-cancerous lesions.

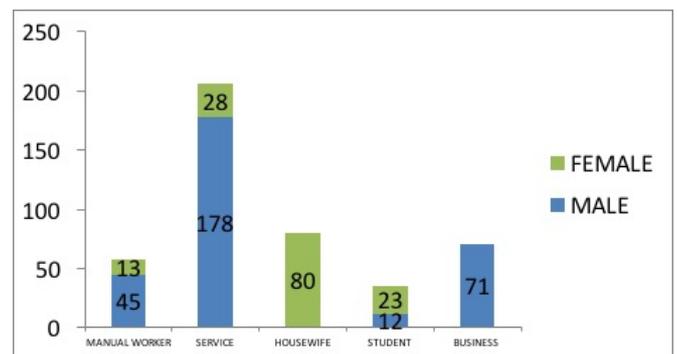
Table 2:- Correctly Identifying Early Signs of Pre-cancerous lesions

Signs	Male	Female	Total
Non-healing Ulcer	178	193	371(82.4%)
Red / White patch	93	65	158(35.1%)
Reduced Mouth Opening	133	123	256(56.9%)
Rashes	22	46	68(15.1%)
Burning Sensation	43	92	135(30%)

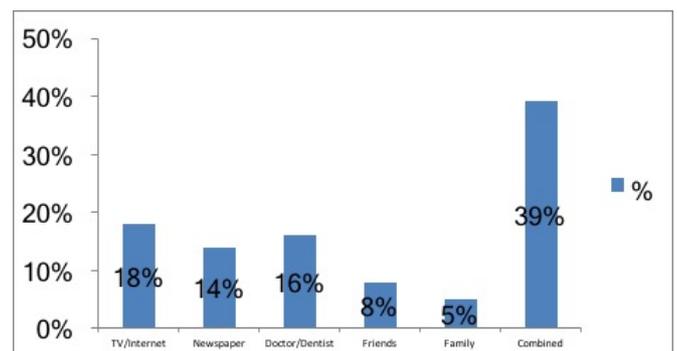
During this study, presence of major modifiable risk factor, i.e. use of tobacco and alcohol, among the studied population was estimated. It was found that there was presence of one or more of these risk factor among 211(46.9%) of the studied population.

Table 3:- Gender wise distribution for use of Tobacco and Alcohol

	Smoked	Smoke less	Both	Alcohol	Alcohol & OR Tobacco
Male	53	74	21	63	190(57.9%)
Female	29	97	2	12	138(42.1%)
Total	82	171	23	75	328(100%)



Graph 1: Gender wise Occupation



Graph 2: Source of information for Oral hygiene or cancer

Use of smoked tobacco was more common in the younger age group while smokeless tobacco had a secular trend. Most of participants claimed use of alcohol was occasional; hence it was taken as life time use. Among all participants 328(72.9%) were using either tobacco and or alcohol. Only 83(18.4%) participants claimed that they visit dentists regularly. Rest submitted that they take advice of pharmacist or go for self-medication, if they had some oral or dental problem.

DISCUSSION

In the present study, most of the participants (84%) had heard about oral cancer, although their conception about the disease varied. Similarly study done by A. Ariyawadana^[7] in Sri Lanka found 95% of study population knew about it. Study done in Turkey by I. Peker^[8] shows that in their study population only 39.3% had heard about oral cancer.

In this study, we found that 10.7% thought oral cancer to be untreatable whereas 8.7% thought it to be contagious. The study done by Elangovan in Chennai^[9] found that more than 16% of study population thought it to be contagious as well as curse of a god. While 9.7% of the population thought it to be a disease of poverty. Elangovan also found that 23% of study population believed that use of expensive tobacco will not cause oral cancer.

In this study, most of the participants (82%) identified non-healing ulcer to be a pre-cancerous lesion, this was followed by 56.9% of participants identifying reduced mouth opening as early pre-cancerous lesion and 35.1% of participants identified white/red patches as sign of early pre-cancerous lesion. Studies done by Peker^[8] had similar findings that 68% of the population identified white/red patches as pre-cancerous lesion while 17.5% identified non healing ulcers to be the sign of pre-cancerous lesion.

Dissemination of information about oral cancer and pre-cancerous lesions was universally spread by multimedia sources in all the studies. In this study, it has been observed that 18% of study population was using smoke tobacco whereas 38% were using smokeless tobacco while lifetime use for alcohol was 16%. Similarly A. Aryawadan^[7] found that among study population 12.2% were using smokeless tobacco, 8.3% were using smoked tobacco and 7.8% were using alcohol. In both these studies, awareness about oral cancer was high, yet still participants were using one or another substance predisposing to oral cancer.

CONCLUSION

Level of awareness about Oral Cancer was good but a small proportion of people had certain misconceptions. Knowledge about pre-cancerous lesions was very poor. Added to this, a significant portion of participants were using one or more substances' which predispose to oral cancer. There is a urgent and severe need for IEC among the general population to educate them about risk factors & early identification of signs of oral cancer.

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