



Knowledge and Awareness Regarding Oral Cancer among Dental Patients

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ABSTRACT

The aim of the study was to assess the knowledge, awareness and the attitude of dental patients towards Oral cancer. A self-administered structured questionnaire consisting of 16 questions on knowledge, attitude and awareness about Oral cancer was distributed among 100 dental patients randomly who visited saveetha dental college, saveetha university, chennai. Only 71% of people have heard about the term oral cancer. Only 19% have heard about oral cancer from their dentist and the mass media was the main source of information for them (37%). Only 37% and 28% respectively answered smoking and tobacco as the risk factors. 26% were able to correctly identify the main three signs and symptoms of oral cancer. 42% believed that oral cancer is an infectious disease, while 39% believed that oral cancer is a contagious disease. 42% of the patients disagreed that early detection of oral cancer helps in avoiding the mortality and morbidity of oral cancer. The data extracted were tabulated, statistically analyzed using SPSS Version 17.0 and results obtained. Majority of dental patients in this study had poor knowledge and general lack of awareness regarding the risk habits, early signs and symptoms and the benefits of detecting oral cancer at an early stage. Patients should be made aware of the oral cancer and its complications and the role of habits in the development of oral cancer. Dentists play an important role in informing the public about risk factors and signs of oral cancer. Hence these findings imply that there is a need for social awareness programs to more clearly address misconceptions and attitudes towards oral cancer.

Keywords: Awareness, dental patients, Oral cancer, Risk factors, sign and symptoms.

INTRODUCTION

Oral cancer is one of the major public health problems globally. Oral cancer is one the most life threatening conditions. Oral cancer is ranked as the sixth most common cancer. The etiology of oral cancer includes tobacco use, alcohol consumption, smoking and other habits like betel use. Besides them, human papilloma virus is implicated in oropharyngeal cancer and ultraviolet light is implicated in lip cancer. Other factors which may also contribute to oral cancer includes immune suppressants, familial and genetic factors. Previous research has indicated that lack of public awareness about signs and risk factors of oral cancer can contribute to the late diagnosis and poor prognosis of oral cancer.^{1,2}

Oral cancer is mostly preventable. As the mouth is easily accessible for self or clinical examination early diagnosis of the malignancy is possible and it greatly increases the survival rates.³ The prognosis of oral cancer is poor with lowest survival rates of <50% within a 5-year period. In spite of advances in the diagnosis and treatment of oral cavity, the proportion of oral cancer cases diagnosed at an early and localized stage is still <50%. Early diagnosis will increase the probability of cure and survival rates. Researchers in oral cancer say that lack of public awareness has been a potent barrier for early detection of cancer. With this in mind, the present study was carried out to assess the awareness and beliefs of oral

cancer among patients visiting Saveetha Dental College and Hospital, Chennai.

Therefore the aim of the present study was to determine the level of public awareness, knowledge about signs, symptoms and risk factors of oral cancer and also the attitude towards treatment and early diagnosis. It was planned to use the results obtained from this study to assist in the implementation of a health education program to enhance public knowledge about oral cancer and attitudes towards early diagnosis and treatment.

METHODS

The study was conducted during the academic year October-December 2016 in Saveetha Dental College and Hospital, Chennai. Dental patients in the age group of 20-70 who were willing to participate were included in the study after obtaining informed consent and ethical committee clearance. A total of 100 patients were selected randomly and self-administered questionnaire was given to the respondents. The questionnaire consisted of 16 structured questions to assess the patients' knowledge levels, attitude and awareness regarding oral cancer. The questionnaire included the information about patient's age, gender, education level and profession. The questions were related to habits, risk factors, signs and symptoms, treatment of oral cancer, and source of information about oral cancer. The structured questionnaire was formatted in English and for those patients who could not understand English they



were interpreted in Tamil. The data extracted were tabulated, statistically analyzed using SPSS Version 17.0 and results obtained.

Questionnaire:

Knowledge and awareness regarding oral cancer among dental patients

Age: Educational qualification:

Gender: Profession:

Diet: mixed/veg

Habits: smoking/ drinking/ smoking and drinking/ others

[Others includes pan parag, guthka, betel quid, smokeless tobacco]

1. Are you aware of the term called cancer?
A) Yes b) no
2. What are the risk factors of oral cancer?
A) Smoking
B) tobacco in various forms
C) Alcohol
D) All of the above
3. What are the signs and symptoms of oral cancer?
A) Pain
B) Swelling
C) Red/ white patch
D) Non healing Ulcer
E) Difficulty in tongue movement
a)0 b) 1 c) 2 d) 3 e) 4 f) 5
4. Which age groups does oral cancer occur?
A) Only in elderly patient
B) Only in young patient
C) In all age groups
5. Is oral cancer is an infectious disease?
A) Yes b) no
6. Is oral cancer is a contagious disease?
A) Yes b) no
7. What measures do you take when you notice an oral lesion?
A) Consult a dentist
B) Consult a physician
C) Apply home remedies
D) Wait and watch
8. Which region do you think is a common site for oral cancer?
A) Tongue
B) Erupted teeth
C) Lips
D) Any other areas in the oral cavity
9. Can early detection of oral cancer help in avoiding the mortality and morbidity rate?
A) yes b) no
10. Are you aware about the treatments available for oral cancer?
A) Yes b) no
11. Do you think regular dental visit can help in early diagnosis of oral cancer?
A) Yes b) no

12. Do you think dentists are qualified in diagnosing oral cancer?
A) Yes b) no
13. Do you visit dentist regularly for oral/ dental examination?
A) Yes b) no
14. Are you aware that oral cancer can lead to death if untreated?
A) Yes b) no
15. Through which means were you aware about oral cancer?
A) Mass media
B) News paper
C) Dentist
D) Others
16. Are you aware of the treatment costs for oral cancer?
A) Yes b) no

RESULTS

The sample of 100 patients who reported to saveetha dental college comprised of 60 male subjects (60%) and 40 female subjects (40%). (Table 1) The study sample consisted patients in the age group of 20-70 years. (Table 2) In terms of education, 54% had a university education, 30% had high school education, 10% had elementary school education and 6% were illiterate. Out of the total group investigated, 21% were smokers, 16% reported alcohol drinking, 21% reported smoking and drinking, 4% reported others which include tobacco in various forms and 38% people were found to have no habits.(Table3) Only 71% of people have heard about the term oral cancer.(Fig 1) In patients who were aware of oral cancer the mass media was the main source of information (37%). Only 19% have heard about oral cancer from their dentist, 17% have heard it from the newspaper and 27% from others which include physician, friends and relatives.(Fig 8)When asked about the risk factors of oral cancer 37% and 28% respectively identified smoking and tobacco as the risk factors. 9% believed alcohol as the risk factor and about one third (26%) believed that all the habits contributed to the occurrence of oral cancer. (Fig 2) When asked about signs of oral cancer 8% of people were not aware of signs of oral cancer. However 26% were able to correctly identify the main three symptoms which include red/white patch, non-healing ulcer and swelling. 21% only identified one sign, 5% identified four signs, and 7% identified all five signs which included pain, difficulty in tongue movement and earlier three signs. 33% of people identified two signs of oral cancer.(Fig 3)Only 37% and 17%, respectively were able to identify the tongue and lips as the most common sites of oral cancer. A minority which is 19% believed that erupted can develop oral cancer and 26% believed that any other areas in the oral cavity can lead to oral cancer. Patients also had a



difference of opinion regarding the age of occurrence of oral cancer.(Fig 4) About 42% believed that oral cancer is an infectious disease (Fig 5) while 39% believed that oral cancer is a contagious disease (Fig 6) and therefore they should avoid contact with affected patients.

58% of the patients agreed that early detection of oral cancer helps in avoiding the mortality and morbidity of oral cancer. However 42% patient disagreed to it. When asked about regular dental visits only 42% patients reported that they would visit a dentist regularly for oral or dental examination. In the other hand 75% people believed that regular dental visits can help in early detection of oral cancer and 78% thought that dentist are qualified to diagnose oral cancer. When asked about actions they would that they would take if they noticed oral lesions, 35% stated that they would consult a dentist, 41% said that they would consult a physician, 15% that they would apply home remedies(olive oil, sesame paste, water and salt, mouthwash, or iodine), and 9% would take no action wait and watch. (Fig 7)

Table 1: Distribution of study population according to gender

Gender	N%
Males	60 (60%)
Females	40(40%)
Total	100

Table 2: Distribution of study population according to age

Age Groups	N%
20-30 years	35
31-40 years	29
41-50 years	13
51-60 years	18
61-70 years	5
Total	100

Table 3: Distribution of study population according to habits

Habits	N%
Smoking	21
Alcohol	16
Smoking and Alcohol	21
Others(tobacco in various forms)	4
No Habits	38

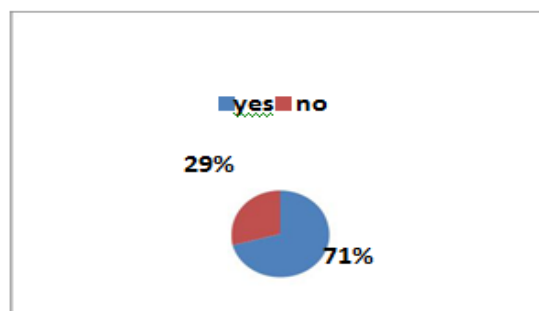


Figure1: Awareness of the term Oral cancer

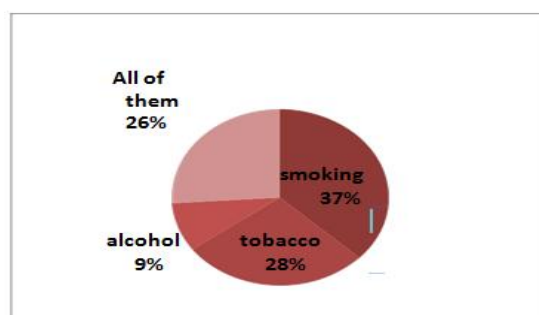


Figure 2: Risk factors of Oral cancer

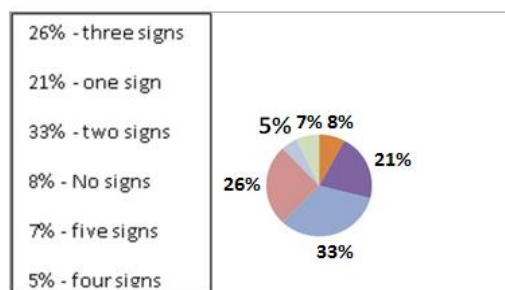


Figure 3: Signs and Symptoms of Oral cancer

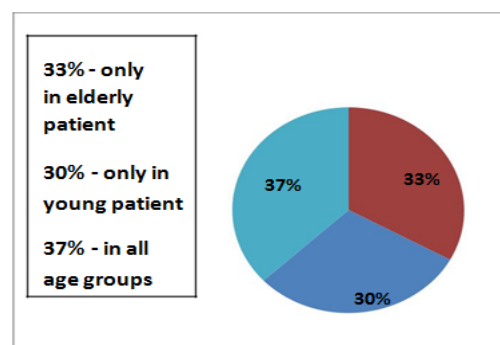


Figure 4: Age of occurrence of Oral cancer

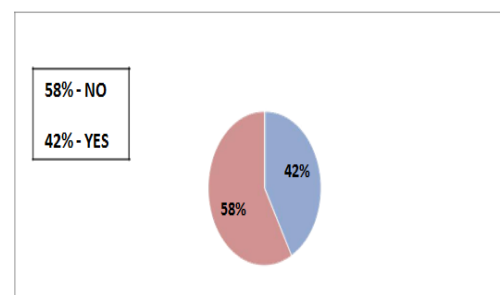


Figure 5: Oral cancer is an infectious disease

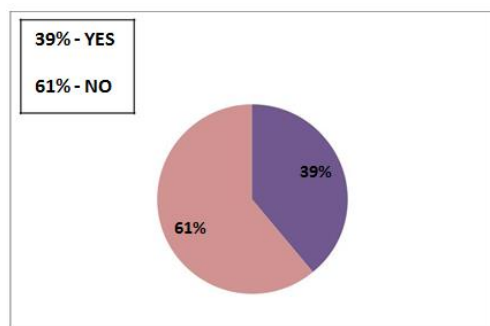


Figure 6: Oral cancer is a contagious disease

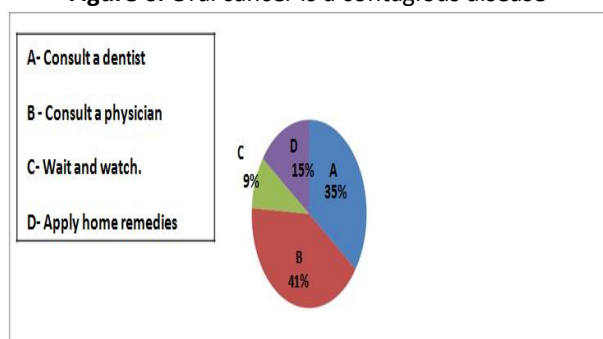


Figure 7: Measures taken when oral lesion noticed

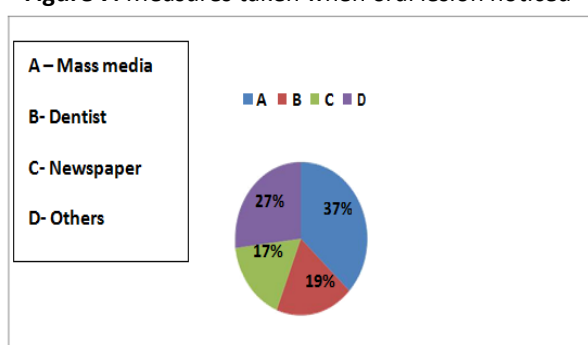


Figure 8: Sources of information about oral cancer

DISCUSSION

The overall prognosis of oral cancer is not good, with a 5-year survival rate generally of approximately 50%,⁴ the prognosis being influenced by several factors – especially the stage at the time of diagnosis and treatment.⁵ Unfortunately, most oral cancers, even in developed countries, are detected in late stages and delay in diagnosis and treatment has been attributed, at least in part, to the lack of public knowledge and awareness about signs and risk factors of oral cancer. The present study examined the level of awareness and beliefs about oral cancer in patients visiting Saveetha dental college and Hospitals.⁶ The level of participants' awareness about oral cancer was alarmingly low, with only 54% knowing that cancer can occur in the mouth. Similar studies conducted in other countries have revealed variable results, with values ranging from 32.3% to 95%. Interestingly, other studies conducted in countries with a particularly high prevalence of oral cancer, such as India, Sri Lanka, and Malaysia, reported higher levels of public

awareness.^{6,7,8} The low level of awareness observed in our study could be attributed to the relatively to the current lack of public health education programs focusing on this type of cancer.

Tobacco smoking and alcohol consumption are the two main risk factors for oral cancer.⁹ The results of the present study showed that around 21% smoke cigarette and 16% drink alcohol. Although more than two-thirds were aware of the association between tobacco use and oral cancer, only 9% were aware that alcohol is a risk factor. Only around 26% of the participants obtained scores of 3 (of a maximal score of 5) when asked about signs of oral cancer, indicating a significant lack of knowledge in this aspect. Similar to other studies, ulcer, mass, and white/red patches were most commonly identified signs of oral cancer.^{1,10} Scully has suggested a 'RULE' for cancer diagnosis – an acronym based on Red or white lesion, Ulcer, Lump, Exceeding 3 weeks' duration.¹¹ Improving knowledge of these high risk groups about oral cancer is therefore particularly important.

More than half (39%) the participants knew about oral cancer through public media (TV, newspaper, and the Internet), which emphasizes the importance of using public media to inform society about important health issues, including oral cancer. Only 19% had heard about oral cancer from their dentist. Dentists are therefore encouraged to practice their pivotal role in informing the public about risk factors and signs of oral cancer. In addition, continuous education programs should focus on updating dentists' knowledge about oral cancer and improving their clinical skills in oral cancer screening.¹²

Attitudes towards early diagnosis and treatment were generally positive. Most of the participants (75%) believed that regular dental visits can help in early detection of oral cancer, and 78% believed that dentists are qualified in the diagnosis of oral cancer. However, only 42% regularly visited dentists for oral examination. The importance of regular dental visits for oral examination and for consultation regarding an abnormal oral lesion should therefore be emphasized to the public. Practices such as applying home remedies for persistent oral lesions were relatively common among participants (15%). This could be attributed to cultural factors and to inherited beliefs about the curative effect of some indigenous herbs and plants; this is particularly common among less-educated and older people.¹³

The present study was primarily a hospital-based survey; however, it revealed some important aspects about public knowledge and awareness regarding oral cancer. Well-designed population-based studies are therefore

needed to assess, in greater detail, public knowledge about oral cancer. Nevertheless, the findings of our study suggest that suitable health education materials depicting risk factors and clinical features of oral cancer should be provided to the public, especially for high-risk groups.¹⁴

CONCLUSION

Dental patients in this study had poor knowledge and general lack of awareness regarding the risk habits, early signs and symptoms and the benefits of detecting oral cancer at an early stage. Patients should be made aware of the oral cancer and its complications and the role of habits in the development of oral cancer. Dentists play an important role in informing the public about risk factors and signs of oral cancer. Hence these findings imply that there is a need for social awareness programs to more clearly address misconceptions and attitudes towards oral cancer.

REFERENCES

1. Devadiga A, Prasad KV. Knowledge about oral cancer in adults attending a dental hospital in India. *Asian Pac J Cancer Prev*, 11(6), Jan 1, 2010, 1609-13.
2. Monteiro LS, Salazar F, Pacheco J, Warnakulasuriya S. Oral cancer awareness and knowledge in the city of valongo, portugal. *Int J Dent*, 8, 2012.
3. Park JH, Slack-Smith L, Smith A, Frydrych AM, O'Ferrall I, Bulsara M. Knowledge and perceptions regarding oral and pharyngeal carcinoma among adult dental patients. *Aust Dent J*, 56, 2011, 284-9.
4. Van der Schroeff MP, Baatenburg de Jong RJ. Staging and prognosis in head and neck cancer. *Oral Oncol*, 45, 2009, 356-60.
5. Shah JP, Gil Z. Current concepts in management of oral cancer—surgery. *Oral Oncol* 45, 2009, 394-401.
6. Agarwal M, Pandey S, Jain S, Maitin S. Oral cancer awareness of the general public in Gorakhpur city, India. *Asian Pac J Cancer Prev*, 13, 2012, 5195-9.
7. Ariyawardana A, Vithanaarachchi N. Awareness of oral cancer and precancer among patients attending a hospital in Sri Lanka. *Asian Pac J Cancer Prev*, 6(1), Jan 23, 2005, 58-61.
8. Saini R, Ghani ZI, Rahman NA. The awareness of oral cancer in adult patients attending School of Dental Sciences, University Sains Malaysia: a preliminary study. *Singapore Dent J*, 28, 2006, 34-9.
9. Muwonge R, Ramadas K, Sankila R. Role of tobacco smoking, chewing and alcohol drinking in the risk of oral cancer in Trivandrum, India: a nested case-control design using incident cancer cases. *Oral Oncol*, 44, 2008, 446-54.
10. Hertrampf K, Wenz HJ, Koller M. Public awareness about prevention and early detection of oral cancer: a population based study in Northern Germany. *J Craniomaxillofac Surg*, 40, 2012, e82-e86.
11. Scully C. RULE for cancer diagnosis. *Br Dent J*, 215, 2013, 265-6.
12. Patton LL, Agans R, Elter JR. Oral cancer knowledge and examination experiences among North Carolina adults. *J Public Health Dent*, 64, 2004, 173-80.
13. Sawair FA. Recurrent aphthous stomatitis: do we know what patients are using to treat the ulcers? *J Altern Complement Med*, 16, 2010, 651-5.
14. Petti S, Scully C. Oral cancer knowledge and awareness: primary and secondary effects of an information leaflet. *Oral Oncol*, 43, 2007, 408-15.

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