



Knowledge, Attitude and Practices Regarding Oral Cancer among General Dentists

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ABSTRACT

The aim of the study is to assess the knowledge, attitude and practices regarding oral cancer among General Dentists in Chennai city. A self-administered validated questionnaire of 20 questions, regarding the basic knowledge, attitude and practices towards oral cancer was distributed randomly among 100 dentists in Chennai. The data extracted was tabulated, statistically analyzed and results obtained. 82% of the participants informed their patients about all the risk factors of oral cancer especially about the ill effects of tobacco and alcohol consumption. Only 44% of dentists were confident enough to do lymph node examination to rule out nodal metastasis. 70% agreed that they knew to systematically examine the oral cavity to rule out any cancerous lesions but only 40% did routine preventive examination for oral cancer in all their patients. 80% of them were interested in attending training programmes on oral cancer. It is concluded, General dentists in this study have a good level of knowledge and positive attitudes regarding oral cancer. However the knowledge acquired must be transferred into daily practice. The results suggest that additional training and continuing educational programs on prevention and early detection of oral cancer for general dentists are to be highly recommended.

Keywords: Knowledge, attitude, practice, oral cancer, dentists.

INTRODUCTION

Oral cancer is a major health issues dealt with, especially in developing countries and a serious cause of morbidity and mortality worldwide. It is one of the 10 most frequent cancers in the world, with three quarters of the cases occurring in developing countries.¹

High rates are present particularly in countries like India and Sri Lanka where oral cancer is the most common type of cancer. Oral cancer is most common in males, lower socioeconomic groups and in ethnic minority groups although rates in females are on the rise.

In India, Oral cancer is the sixth most common cancer among the males and the third most common cancer among the females.² Squamous cell carcinoma accounts for 95% of oral cancers and is of multi factorial in origin with tobacco and alcohol consumption being the important risk factors. One of the measures in prevention of oral cancer is by avoiding the habit of tobacco consumption in any form and maintaining a better standard of oral hygiene.³

Oral cancer is largely preventable and early diagnosis of the malignancy considerably increases the survival rates as the oral cavity is easily accessible for self or clinical examination. Oral cancer also has one of the lowest average 5-year survival rates that remain unaffected despite recent therapeutic advances, mainly because of late presentation due to delays in the diagnosis.⁴ Among health care professionals it is expected more from the dentists to make a prompt diagnosis of oral cancerous

lesions in its initial stages during the routine oral cavity examination.

Although the oral cavity is a potentially accessible site for examination, up to 50% of oral cancers undetected until the disease is well advanced, which may be attributed to poor knowledge and technical skills of the dentists towards oral cancer. Therefore adequate knowledge of dentists about oral cancer leads to early detection of oral cancer which not only guarantees an increase in the survival rate of the patients, but also an improvement in the quality of life as a result of less aggressive, mutilating and costly treatments.⁵ Several studies in different geographic locations have assessed dentists' knowledge and practices regarding oral cancer and showed the need to improve the knowledge on preventing and detecting oral cancer.⁶⁻⁹ The purpose of this study was to assess the knowledge, attitude and practices regarding oral cancer among general dental practitioners in Chennai city.

METHODS

This cross-sectional study was carried out during May-July 2016 among 100 General dentists practicing in Chennai. General dental practitioners with less than 5 years of experience after graduation were included in the study and were selected by random sampling method. A self-administered validated questionnaire of 20 questions was distributed among all the participants of the study personally and the questions were designed to assess their basic knowledge and awareness about oral cancer. Questions were also included to evaluate their attitude and practices towards oral cancer. All of them responded



to the survey. Data extracted were tabulated, statistically analyzed using the SPSS version 20 software and results obtained.

RESULTS

Among 100 dentists who participated in the study, 92% were aware about the commonest cancer in oral cavity and 75% answered correctly when asked about the commonest lesions associated with oral cancer. 67% were aware of the risk factors for oral cancer and 80% had a good knowledge about the clinical manifestations of oral cancer. 64% knew about the frequent sites from which oral cancer arises, whereas the rest were not sure. 70% agreed that they knew to systematically examine the oral cavity to rule out any cancerous lesions. Only 44% of dentists were confident enough to do lymph node examination to rule out nodal metastasis. 92% of them learnt about oral cancer from their dental college curriculum but were not updated (Table 1).

88% of dentists routinely asked their patients about tobacco use and 84% about alcohol consumption. 81% routinely asked their patients regarding their dietary habits. 36% of dentists did not routinely enquire about the family history or any personal history of oral cancer from their patients. 82% of the participants informed their patients about all the risk factors of oral cancer especially about tobacco and alcohol consumption. 66% informed to their patients about the signs and symptoms of oral cancer and majority (84%) alerted their patients about the suspicious looking oral lesions. Only 40% did routine preventive examination for oral cancer in all their patients (Fig 1).72% felt that their knowledge regarding detection of oral cancer is not up-to-date. 80% of them

were interested in attending training programmes on oral cancer and agreed that there is a strong need for additional training in oral cancer (Fig 2).

Table 1: Knowledge about oral cancer

	Frequency of Dentists with correct responses	Percentage (%)
Knowledge about commonest form of oral cancer	92	92
Knowledge about the commonest lesion associated with oral cancer	75	75
Knowledge about the risk factors for oral cancer	67	67
Knowledge about clinical features of oral cancer	80	80
Knowledge about frequent sites of location for oral cancer	64	64
Knowledge about examination of oral cavity for cancer	70	70
Knowledge about lymph node examination for metastasis	44	44

Figure 1: Practices followed regarding oral cancer

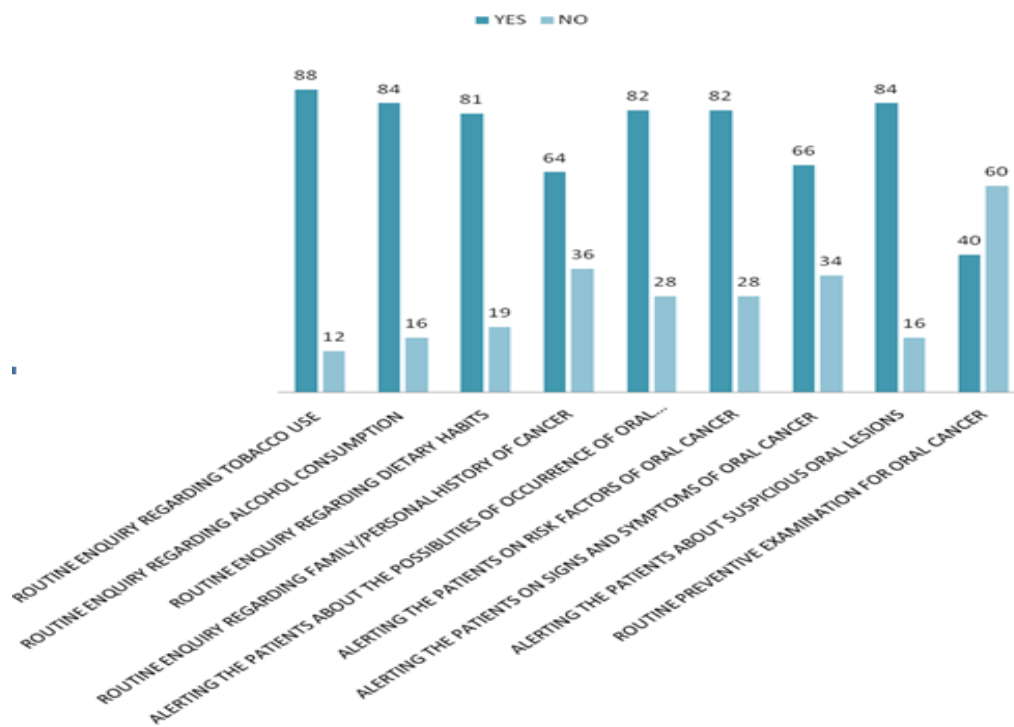
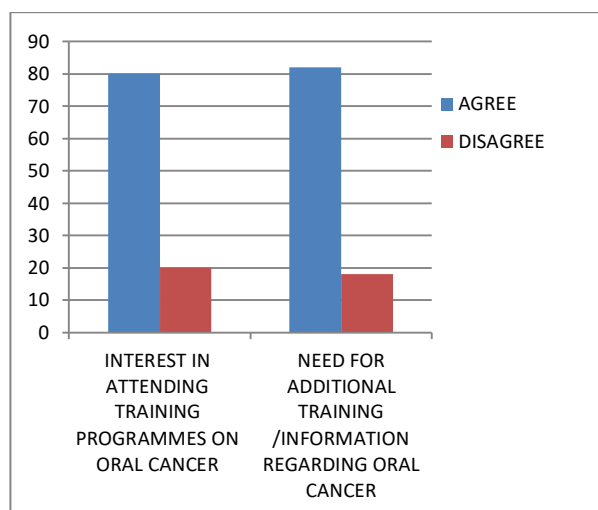


Figure 2: Attitude regarding oral cancer

DISCUSSION

Dental professionals have an important role in both, primary prevention of oral cancer by encouraging healthy lifestyles and secondary prevention by detecting oral cancer or its precursor lesions at early stages. From the beginning of dental practice, general dentists are exposed to all sorts of patients and it is imperative to have an adequate knowledge about oral cancer to diagnose such lesions in their patients. Hence, this study was done mainly on general dentists with less than 5 years of experience after graduation to assess their ability to handle patients with oral precancerous or cancerous lesions. Inferences from the study will help us to understand the level of knowledge imparted on them by dental curriculum which will help us to formulate the necessary changes in teaching curriculum in the future and enable us to plan for any additional training for the general dentists.

Two major known risk factors for oral cancer are alcohol and tobacco which have a synergistic effect. Persons who drink and smoke have much higher risk of oral cancer than those using only alcohol or tobacco. Other risk factors include poor diet and nutrition, sun exposure and the human papilloma virus. The respondents in this study were found to have a good level of knowledge regarding the risk factors (67%) and clinical manifestations (80%) of oral cancer which is similar to the study by Anderson Rocha-Buelvas *et al.*¹⁰ In a study in Sri Lanka¹¹, 65% of respondents had adequate knowledge of screening for this disease which could be attributed to inclusion of oral cancer related topics in dental curriculum for the undergraduate dental students due higher incidence of oral cancer in Sri Lanka. In other similar studies, knowledge levels of the groups investigated were generally good.^{12, 13} In contrast, in countries such as Iran; there was little awareness, with 83.8% of the respondents having a low level of knowledge.¹⁴

70% dentists in our survey felt that they are adequately trained to systematically examine patients for oral

cancer, whereas in other studies conducted among dentists in Belgaum¹⁵ and Bangalore¹⁶ it was 57% and 68% respectively. In Sri Lanka, nearly 81% of the dentists believed they were adequately trained in early detection of oral cancer¹¹, while in developed countries such as Spain, 94.7% believed they were qualified to perform the relevant oral examinations¹⁷. According to the results of the present study, only 44% respondents believed that they were adequately trained to perform lymph node palpation to rule out tumor metastasis. Similar studies conducted in Belgaum¹⁵, Bangalore¹⁶, North Carolina¹⁸ and Italy¹⁹ revealed that 88.6%, 50.4%, 77.4% and 66.8% dentists respectively agreed that they have enough training to perform lymph node palpation. This shows the need for adequate training in lymph node examination for general dentists in our city.

More than 80% of dentists in this survey routinely asked all their patients about tobacco use and alcohol consumption and dietary habits. In a study by Anderson Rocha-Buelvas *et al.*¹⁰ over half the respondents (59.14%) believed that it was important to evaluate the patient's personal history of tumors, but less than a quarter (22.58%) evaluated family history of cancer. But in our study, 64% of dentists evaluated patients personal/family history of cancer, whereas others did not as they thought it was irrelevant. In this study 82% of dentists informed their patients about all the risk factors of oral cancer especially about tobacco and alcohol consumption and their adverse effects on health. They also advised on cessation of these habits and gave adequate Anti-tobacco counseling as tobacco in any form is the leading cause of oral cancer in India. This is similar to the study in Spain²⁰ by Seoane-Lestón J *et al* (88.2%), whereas it was only 65% in a study by Bhati *et al.*¹⁵. In a study by Vijay kumar *et al.*¹⁶ in Bangalore less than 37% of dentists were involved in anti-tobacco counseling. Among Spanish dentists²⁰ only 54.7% reported that they advised their patients on cessation of alcohol consumption.

84% of respondents in this study alerted their patients on how to check for any suspicious oral lesions and informed the importance of getting examined immediately by the dentist. This shows the care and concern showed towards their patients in the prevention and early detection of oral cancer. In our study, although 70% of dentists knew to systematically examine the oral cavity for any pathologies, only 40% of the respondents did routine systematic preventive examination of oral soft tissues to rule out oral precancer/cancer in their patients, whereas in contrary it was 72.4% in a study done among Spanish dentists.²⁰ This percentage was even high (83-86%) as reported by other authors in Europe and USA.^{21,22} This shows that the knowledge gained by the dentists in our study was not put into actual practice which could be due to time restraints, effortless attitude or were lacking in confidence.

In this study, only 28% of dentists had adequate updated knowledge on oral cancer, whereas in a study done in New York state, 72% agreed that their knowledge about oral cancer was current.⁹ Other results for the similar parameter from the study in Spain was 49.7%¹⁷ and 57% in the study by Bhati et al¹⁵. Further 80% Dentists felt they needed more and better trainings regarding oral cancer, which is similar to other studies from Sri Lanka (70%),¹¹ Columbia¹⁰ and Yemen (86%).²³ In USA, it has been shown that there is a need for educational programs on oral cancers, for further training of primary care providers.²⁴ An encouraging 80% dentists said they were interested in receiving continuing dental education [CDE] on oral cancer from time to time, which is similar to the study by Charles LeHew et al²⁵ in which 74.5% of dentists were willing for CDE.

Although General dentists in our study had adequate knowledge about oral cancer, there is room for improvement and they were not confident in some practice aspects while dealing with oral cancer patients. But majority showed a very positive attitude to learn more about oral cancer and keep them updated with the latest protocols for the screening and management of oral cancer for the betterment of the quality of life of cancer patients.

Increasing the knowledge of graduating dental students by including oral cancer related topics in the dental curriculum and providing adequate training programmes and workshops on oral cancer will improve their standards, enabling them to provide proper oral cancer examinations for their patients when they become practicing dentists. Future directions should consider including education in this field from time to time as a regular part of continuing professional development for the general dental practitioners.²⁶ Morbidity and mortality due to oral cancer can be reduced if general dentists know how to prevent and diagnose oral cancer.

CONCLUSION

General dentists in this study have a good level of knowledge and positive attitudes regarding oral cancer. However the knowledge acquired must be transferred into daily practice. The results suggest that additional training and continuing educational programs on prevention and early detection of oral cancer for general dentists are to be highly recommended. Educational programs should focus on risk factors, screening, behaviour modification, counselling, physical examination of oral cancer and criteria for referral to specialist for biopsy to facilitate definitive diagnosis and management.

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2. What are the commonest lesions associated with oral cancer?*
 - i) Leukoplakia
 - ii) Erythroplakia
 - iii) Oral submucous fibrosis
 - iv) Lichen planus
3. What are the risk factors for oral cancer?*
 - i) Tobacco
 - ii) Alcohol
 - iii) Sunlight
 - iv) Radiation
 - v) Betelnut chewing
 - vi) Genetics
 - vii) Poor nutrition
 - viii) Chronic irritation
 - ix) Candidiasis
4. What are the clinical features of oral cancer?*
 - i) Ulcers
 - ii) Erosions
 - iii) Fissures
 - iv) Fungation
 - v) Exophytic surface
5. The frequent sites of location for oral cancer are:*
 - i) Tongue
 - ii) Gingiva
 - iii) Floor of the mouth
 - iv) Buccal mucosa
6. Do you ask your patients routinely regarding tobacco use?
 - i) Yes
 - ii) No
7. Do you ask your patients routinely regarding alcohol consumption?
 - i) Yes
 - ii) No
8. Do you ask your patients routinely regarding their dietary habits?
 - i) Yes
 - ii) No
9. Do you ask your patients routinely about their family history/ personal history of cancers?
 - i) Yes
 - ii) No
10. Do you inform and alert the patients on tobacco use and alcohol consumption and about the possibility of occurrence of oral cancer?
 - i) Yes
 - ii) No
11. Do you inform the patients about all the risk factors for oral cancer?
 - i) Yes
 - ii) No
12. Do you inform the patients about the signs and symptoms of oral cancer?
 - i) Yes
 - ii) No

ANNEXURE

Questionnaire:

Knowledge, attitude and practices regarding oral cancer among General Dentists.

Tick the appropriate answers for each question [kindly select only one option for each question except for questions marked with asterisk *]

1. Which is the most commonest form of oral cancer?
 - I) Squamous cell carcinoma
 - II) Malignant melanoma
 - III) Fibrosarcoma
 - IV) Adenoid cystic carcinoma



13. Do you alert the patients about the suspicious oral lesions?
i) Yes
ii) No
14. Do you do a routine preventive examination for oral cancer for all of your patients? [especially the elderly]
i) Yes
ii) No
15. Do you know how to examine to check for cancer in the oral cavity?
i) Yes
ii) No
16. Do you know how to perform a lymph node examination and palpation to check for any tumour metastasis?
i) Yes
ii) No
17. What is the source from which you attained knowledge about oral cancer?*
- i) Teaching curriculum
ii) media
iii) seminars
iv) workshops
v) continuing medical/dental education programs
vi) conferences
18. Are you interested in attending training programs on oral cancer to keep yourselves updated from time to time?
i) Yes
ii) no
19. Your knowledge regarding prevention and detection of oral cancer is current and adequate.
i) Agree
ii) Disagree
iii) Don't know
20. Do you think there is need for additional training / information regarding oral cancer?
i) Yes, Agree
ii) No, Disagree
iii) Don't know

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