Original Research

Evaluation of awareness about diagnostic methods in oral cancer among BDS students -An original research

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ABSTRACT:
Aim: The purpose of the present research was to assess the knowledge of diagnostic methods amongst undergraduate dental students about oral cancer. **Methodology:** A 15 item Self-administered closed ended questionnaire assessing knowledge, attitude and practices regarding early diagnostic methods was delivered to final year students and Interns willing to participate in study. Data was entered in SPSS (v.21.0) and statistical analysis was done. (p<0.05).**Results:** Among 116 students (Interns 77 and Final year students 39) who participated, only 12.9% felt up-to-date regarding their current knowledge and almost 87% felt the need to upgrade their knowledge. About 84% have performed diagnostic methods but only 52% have performed more than one method. **Conclusion:** The study highlights the need for improved education of undergraduate dental students regarding oral cancer.
Keywords: Early diagnosis, malignancy, prevention, screening, quality of life.

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INTRODUCTION

Oral cancer is considered as one of the major health problems in Asia.[1] Most of the people are unaware of signs and symptoms of potentially malignant oral lesions (PMOL) and reach hospital after advanced symptoms appear leading to delay in diagnosis and treatment of disease.[2] The higher morbidity and mortality in oral cancer is due to delay in diagnosis rather than its aggressiveness.[3] It has been observed that five-year survival rate of oral cancer is only 50%, which can be improved to 80% if the lesion is diagnosed at an early stage.[4] The existingresearch has found that high number of general dental practitioners lack sufficient knowledge in recognizing clinical signs of oral cancer which can also be attributed to most cancers diagnosed at later stages.[2]It has been reported that lack of public knowledge and awareness is the most significant factor in delaying diagnosis and treatment of oral cancer. Some oral cancers may be asymptomatic or some may experience symptoms differently, thus ignorance of early signs of oral cancer may be the most important delaying factor. Lack of awareness among general medical practitioners has also been shown to contribute to delays in diagnosis and treatment of oral cancer. Among health care professionals it is expected that

the dentists are trained to make a prompt diagnosis of oral cancer 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 are undetected until the disease is well advanced, which may be attributed to poor knowledge and technical skills of the dentists towards oral cancer. Primary prevention of oral cancer includes avoidance of tobacco and alcohol use as well as appropriate intake of fruits and vegetables.[5] Regular dental visits are associated with diagnosis of oral cancer at an earlier stage Secondary prevention of oral cancer consists of a visual and tactile examination of the oral cavity, the head and the neck, which is essential for early detection. Previous studies in literature have stated that more emphasis should be laid in imparting knowledge to undergraduate dental students at the grass root level, regarding early detection methods of oral cancer and have shown that the General Dentist Practitioners' (GDP's) felt they were not completely trained in recognition of oral cancer at early stages. This raises several questions related to the education and training of undergraduate students in terms of performance.[6] So, there is need to inculcate a positive attitude amongst them towards early diagnosis and prompt treatment to the patients with suspected oral cancer lesions Also, this would help to improve survival rates and quality of life of patients.

AIM OF THE PRESENT STUDY
The purpose of the present research was to assess the knowledge of diagnostic methods amongst undergraduate dental students about oral cancer.

METHODOLOGY
Table 1: Analytical data of study

A cross-sectional questionnaire study was conducted where convenience sampling approach was used. All Final year students and Interns from our institution participated. A pre-tested, pre-validated, 15- item Self-administered structured closed ended questionnaire assessing the students' knowledge, attitude and practices regarding early diagnostic methods of detecting oral cancer was given to those final year students and Interns. Data obtained was entered in Microsoft Excel 2010. Frequency and descriptive analysis was done by using Statistical package for social sciences (v.21.0). Mean score and standard deviation of knowledge was derived. Chi-square test of proportion was used.

RESULTS
About 77 interns and 39 final year students participated in the study contributing to a total sample of 116 students. The Questionnaire recorded 6 items assessing knowledge, attitude and practices regarding early detection methods of oral cancer, All the participants (n = 16) responded correctly to the fact that Early detection methods of Oral cancer does improve survival rates and Oral cancer examination (OCE) should be done for any patient with adverse tissue habits. About 84.5% (n=98) participants knew that patient education regarding risk factors is important and over 81% (n=94) were aware that Toluidine Blue staining is the best method for early detection of Oral Cancer. Self-examination for early detection is essential, was thought by almost 57% (n=67) of the participants. Chi-square test of proportion showed statistically significant results (p value <0.05). The overall mean knowledge score of Interns and final year students was 4.50 ± 0.90, which comes under the category "Good". (Table 1)

Questions	Frequency - n (%)		P value
	Correct response	**Incorrect response**	
Early Detection methods of oral cancer improve survival rates.	116(100%)	-	-
Oral cancer examinations should be done for any patient with adverse tissue habits at a periodic interval	116 (100%)	-	-
Patient education regarding risk factors of oral cancer is important.	98 (84%)	18(15%)	<0.05
Tongue and floor of mouth are the most common sites of oral cancer examination.	31(26%)	85 (74%)	<0.05
Detection of early stages of cancer by	67 (57%)	49 (43%)	<0.05

Self-examination			

DISCUSSION

The study highlights the need for updating the current knowledge of diagnostic methods for detecting oral cancer among undergraduate dental students. Our study found that the undergraduate dental students had a "Good" mean knowledge score (4.5+0.9), which was in consensus with the study conducted by Kumar S, where the mean knowledge of oral cancer among dentists was 5.4+0.8 ("Good"). Study also stated that there is a need of additional training and continuing educational programs on prevention and early detection of oral cancer.[7] In our study, positive attitudes regarding the Oral cancer prevention and early detection were noted. Similarly, Alonge et alobserved a positive perception of oral cancer examination in undergraduate students and dentists in Texas-Mexico border who believed their oral cancer knowledge was current and performed oral cancer examination on all patients of 40 years or older.[8] They stated that more emphasis should be placed on the training of oral cancer examination in dental schools, so that future dental graduates could develop good clinical practice habits and knowledge regarding oral cancer prevention and detection.[9] Almost 74.1% participants referred diagnosed oral cancer cases to a Specialist for further attention, which was similarly observed by Warnakulasuriya K in dental graduates abroad. There is current debate on whether the implementation of screening as a separate procedure from the daily routine work of dental healthcare professionals would be an effective measure for the early detection and prevention of oral cancer. The British Dental Association in 2000 encouraged their members to consider opportunistic oral cancer screening as a management strategy in general dental practice. The American Cancer Society in1992, issued guidelines for oral cancer examination recommended routine screening for cancers of the oral region every three years for persons over 20 years of age and annually for those of 40 years of age and older. Toluidine blue staining as the best method of detection of oral cancer was felt by 81% participants, followed by Brush Biopsy (27%) and Visual and palpation method (12%). In contrast about 95% of respondents used visual examination for oral cancer screening as this was inexpensive, simple, acceptable and had high sensitivity and specificity technique as per the study conducted by Jullien et alin 1995. The reason for these differences may be contributed to the recent advancements and developments happening in medicine, leading to more awareness among the dental undergraduate students.[10-13] It is the responsibility of dental institutions to focus the curriculum so that students should have an adequate knowledge about oral cancer. Even though postgraduate students are taught in detail about oral cancer, it is vital for undergraduate students to attain sufficient knowledge regarding current concepts and latest research activities of this commonest malignant disease.

CONCLUSION

The current study concluded that overall knowledge about early diagnostic methods of detecting oral cancer among Final Year Students and Interns was Good, but the need to update the recent knowledge was felt.

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