A cross sectional survey assessing the knowledge and attitude of medical students regarding oral cancer; a questionnaire based survey

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Abstract

Background: Oral cancer is one of the life threatening disease, early diagnosis of which will greatly increase the probability of cure and survival rate. The medical students who will be soon playing an important role in prevention and detection of oral cancer should have sufficient knowledge of the disease to prevent and minimize the risk of oral cancer.

Aim: The aim of the study is to evaluate the knowledge and attitude of medical oral cancer among medical students.

Methodology: A questionnaire with ten structured questions were prepared and distributed among 500 MBBS Students in first year, second year, third year and final year. The questionnaire included questions regarding the general awareness, risk factors, prevention, detection, source of information and their interest in gaining more information, which was later evaluated.

Results: A total of 500 students participated in the study. The result of awareness questionnaire showed that 80% of the respondents were aware of oral cancer and the risk factors associated with it. But, 78% does not have sufficient knowledge regarding the prevention and detection of oral cancer. 72% of the students depends on media as the source of information and 95% of the students have chosen information packs, lectures and

seminars to be an alternative source of better information.

Keywords: Oral Cancer, Questionnaire Survey.

Introduction

One of the most important health issues the world is currently dealing with is oral cancer. Oral cancer was ranked as the 16th most prevalent cancer worldwide in 2020 by GLOBOCAN, with 377,713 incident cases and 177,757 deaths. Of which, over two thirds, or 65.8%, were new cases and were found in Asian nations.[1] The majority of instances are recorded from developing nations such as Bangladesh, Taiwan, India, and Sri Lanka. Although other variables including alcohol consumption, the human papilloma virus, and ill-fitting dentures can also contribute to the development of cancer, tobacco smoking accounts for 80% of mouth cancer cases.[2]

Oral cancer is most preventable as it is easily accessible for examination. Nevertheless, despite improvements in therapeutic options, oral cancer still has a dismal prognosis. Even with medication available, approximately 45–50% of patients survive for five years [3]. The main causes of the low survival rate and delayed diagnosis include people's long-term high-risk behaviors and ignorance of the risk factors, symptoms, and indicators linked to the development of oral cancer. [4]

The aim of the study is to evaluate the awareness of oral cancer among the medical students of Kamineni Institute of Medical Sciences, Narketpally, Nalgonda dist, Telangana. The medical students who will play an important role in the health care sector is evaluated for basic knowledge related to oral cancer, like the associated risk factors, clinical appearance and preventive measures. It is anticipated that the findings from this study will help to assess the ability of upcoming medical practitioners in diagnosing oral cancer at their early stage and take proper measures to strengthen the health professionals who can contribute to early detection and prevention of oral cancer.

Materials And Methods

The study was conducted among medical students of Kamineni Institute of Medical Sciences, Narketpally, Nalgonda dist, Telangana. A structured closed ended questionnaire with ten questions were prepared in English.

The questionnaire was formulated as in **figure 1**

The questionnaire was distributed among 500 MBBS Students of first year, second year, third year and final year. The questionnaire included questions regarding the general awareness, risk factors, clinical appearance of the lesion, heath care providers, prevention, detection, source of information and their interest in gaining more information. The responses to these questions were evaluated.

Result

A total of 500 students participated in the study. The result of awareness questionnaire showed that 82% of the students are acquainted with the term oral cancer (Graph 1) and 96% of them are aware of the importance of oral examination during the general examination (Graph 2).

421 students out of 500 students acknowledge only tobacco as the causative factor of oral cancer(Graph 3).

Although 87% of the students agree on oral surgeon as the referral doctor, 79% of them are unaware of the clinical appearance, early detection and preventive measures related to oral cancer(Graph 4,5 & 6). 76% of the students depends on media as the source of information and 96% of the students would like to have more information through information packs, lectures or seminars. (Graph 7 ,8 & 9),

Discussion

Oral cancer is one of the most prevalent disease with variable clinical presentations and multiple causative factors. Prevention and early diagnosis of the disease is of utmost importance as it will greatly increase the probability of cure and survival rate. [5] Despite the fact that the oral cavity is accessible for visual examination and that oral cancer and premalignant lesions have well-defined clinical diagnostic features, oral cancers are typically detected in their advanced stages. [6] The proportion of oral cancer cases diagnosed at an early and localized stage is still less than approximately 50% in India.[2]

In the majority of Asian nations, oral cancer is more common in men and is typically detected in the late 50s. The majority of cases of oral cancer are oral squamous cell carcinoma. A changing pattern in oral cancer have been reported in few recent studies, especially in Asian countries where females and younger populations are more prevalent. [7,8]

The incidence, pattern, and prevalence of oral cancer in the Indian population necessitate that health care workers acquire adequate knowledge about oral cancer prevention, risk factors, and clinical appearance during their education. [9]Any practitioner who treats oral pathology needs to be able to recognize any worrisome lesions and be ready to seek expert advice when in doubt. He or she should also be able to direct the patient to the most suitable discipline at the same time. [10]

A good deal of literature is available for the dental students on the awareness regarding oral cancer. However, very little data is available on medical practitioners awareness regarding oral cancer. [6]

The present study included 10 questions pertaining to knowledge about Oral cancer. The first two questions aims at determining the general awareness and attitude of students towards oral cancer and the importance of oral health in overall health. The third question intended on determining the knowledge of students on the etiological factors of oral cancer. The fourth, fifth and sixth questions aims at assessing the awareness of students on the early detection, prevention, clinical appearance and follow up measures. The seventh questions analyse the source of information regarding oral cancer among students. Eighth , ninth, tenth question estimate the attitude of students towards gaining more knowledge and creating awareness among patients regarding oral cancer.

In order to reduce the risk of developing oral cancer, medical professionals are crucial in early detection and public awareness campaigns. As a result, it is expected of medical students to be adequately informed on the etiological agents, the variables that trigger the disease, and its progression. While 80% of the students in the current study are aware of the key causative component and general term, they are not aware of the other elements that contribute to the condition and its clinical presentations. To be informed about a patient's risk of oral cancer, a practitioner must ascertain whether the patient has used tobacco products or alcohol in the past or present.[11]
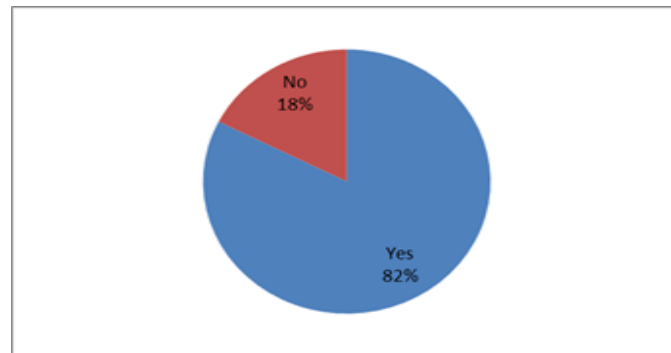
In our study we have evaluated the ability of the medical students in the initial period of their professional course for the awareness of the basics of oral cancer. The results of the present study indicate the lack of sufficient knowledge among students regarding multiple etiological factors of oral cancer, general appearance, early detection and prevention of oral cancer and the requirement of including more structured awareness in the medical curriculum. There is a necessity to create more awareness among students in the form of seminars and lectures, CDE programmes, camps. There is a need

to introduce oral cancer education on prevention, early referral and diagnostic methods of oral cancer in focus on younger generation. Primary health care workers should be involved in such education program and they should be encouraged to participate in health education by providing information on oral cancer and preventive methods to citizens nationwide. [12] Mass media playing an major role as the source of information on oral cancer (72%) which is in accordance with the study done by Park *et al*, should be addressed as it could lead to limited insights to disease processes and medical ignorance.

The recognition and early detection of oral cancer not only guarantees an increase in the survival rate, but also guarantees an improvement in the quality of life . Various steps has to be taken as a control programme to ensure prevention of oral cancer involving health professionals and primary health care personnel with relevant training at an early stage in detection, early diagnosis and treatment of oral cancer. [13]
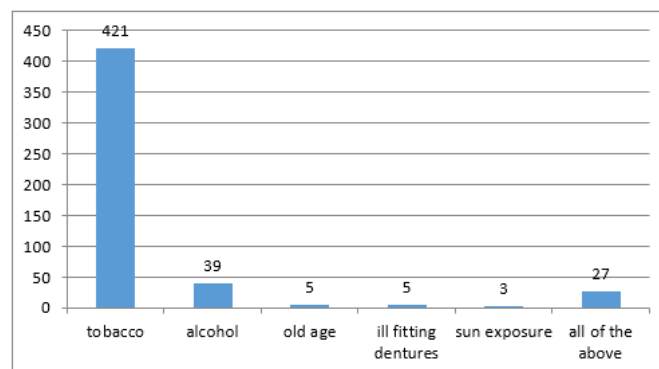

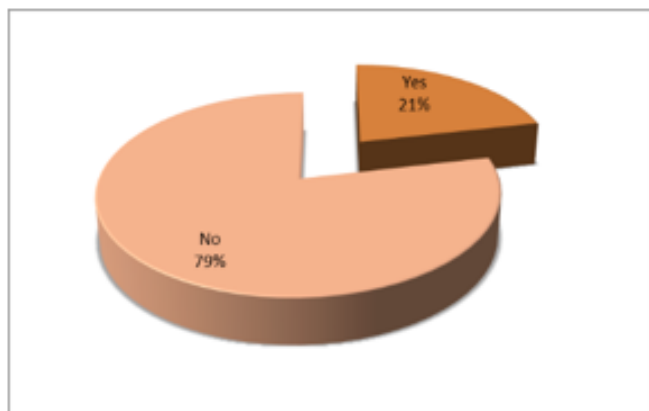Figure 1: The questionnaire formulated for the study

Graph 1: General awareness among students about the term oral cancer
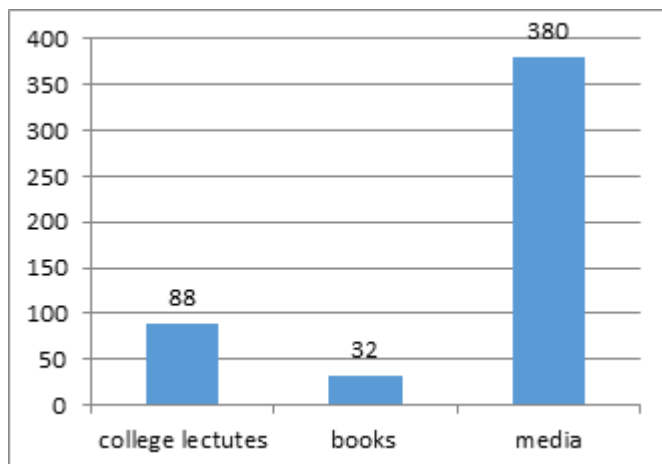

Graph 2: Students agreeing with the importance of carrying out oral health check up during routine general examination.
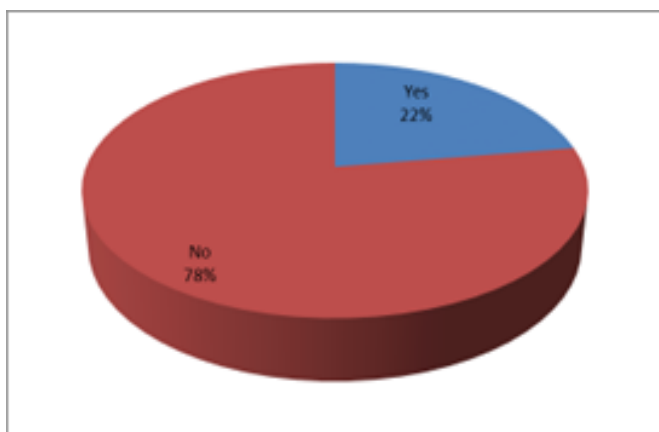

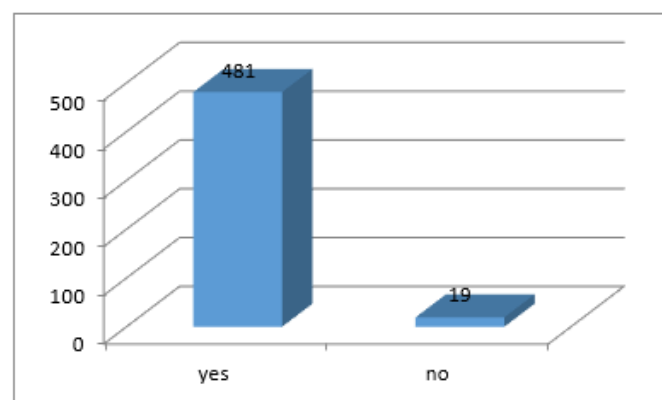Graph 3: Students awareness on the risk factors of oral cancer

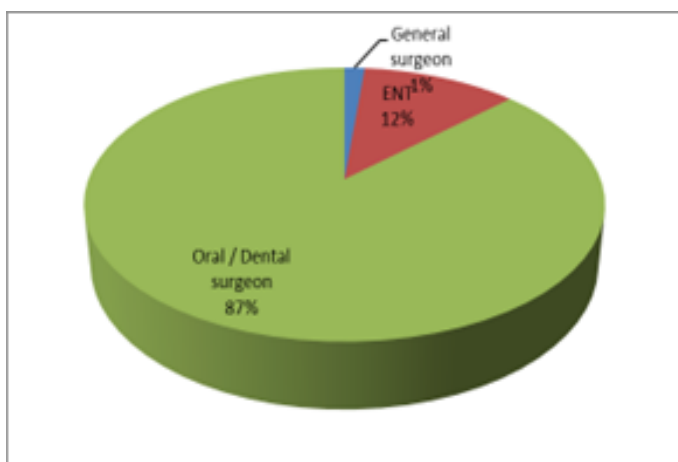Graph 4: Students awareness on the prevention and detection of oral cancer
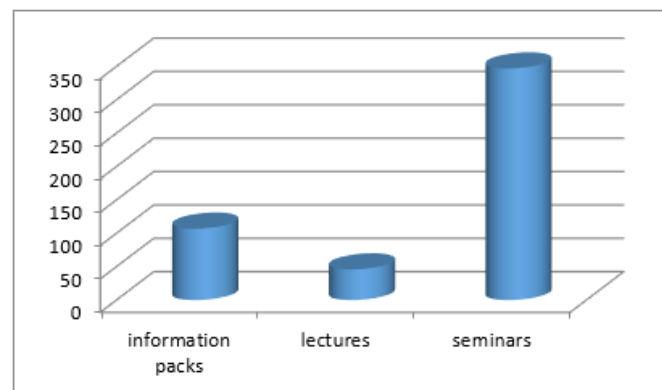

Graph 5: Students Awareness of clinical appearance of oral cancer

Graph 6: Students awareness about referral doctor

Graph 7: Students source of information on oral cancer

Graph 8: Students seeking for more information on oral cancer

Graph 9: Students preference for information format

Conclusion

Early diagnosis and identification of high-risk patients is essential for better response to therapy and improved prognosis. The awareness study conducted among medical students reveal that even though the students are aware of the term oral cancer, they require more

education on general appearance, etiological factors, early detection and preventive measures to create better professionals . Adding more information of oral health into the medical curriculum helps in establishing a greater integrated approach in the overall management of patients with oral cancer making the patient's journey smoother and a more effective and improved outcome . [14]

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