

Oral Cancer and its Supportive Care Knowledge amongst Undergraduate Dental Students of Hazaribagh Dental College

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ABSTRACT

Background: Oral cancer is one of the most debilitating and life threatening of all malignancies and is a major health problem of developing world including India. Deficiencies in training hinder the early diagnosis and may also contribute to the delayed treatment and discomfort of patients. The objective of this study was to assess the knowledge and awareness about oral cancer and supportive care among undergraduate dental students. A questionnaire-based study comprising 12 questions was carried out in clinically posted dental students of third year and final year students of Hazaribagh Dental College, Hazaribagh, Jharkhand. The total number of participants were 100. The majority of students were aware of oral cancer (94.0%) and recognized signs and symptoms of oral cancer. A satisfactory knowledge was observed on risk factors whereas unsatisfactory knowledge was observed about treatment cost. This study highlights the need of continuing dental education with greater emphasis on the early signs and risk factors of oral cancer, performing routine oral examination, appropriate supportive management of suspicious oral lesions and referral to cancer hospital for definite management.

Keywords: Oral cancer, risk factors, undergraduate, management.

INTRODUCTION

Oral cancer is the sixth most common cause of cancer related deaths and is a worldwide problem.¹ Though oral cavity is amenable to routine screening and clinical examination for malignant changes, oral cancer remains a highly deadly disease. It has been reported that lack of awareness among the general public about oral cancer and its associated risk factors is the primary reason for delayed diagnosis.² Lack of knowledge among dental practitioners and undergraduate students has also been shown to contribute to delays in referral and treatment.^{3,4} India being a developing country still lack state of the art facilities in any aspect. Majority of Indian people have a habit of chewing tobacco and

smoking which leads to high incidence of oral cancer. Cancer is identified as one of the major non-communicable disease and is responsible for 42% of total deaths, cerebrovascular accidents being the lead cause responsible for 21% of such deaths, followed by cancer in 7% contributing to a major public health burden. According to National Cancer Registry of Nepal, which pooled data from 7 major hospitals where cancer is diagnosed and treated, the most common cancer in males is lung cancer, followed by oral cavity and stomach while the most common cancer in females are cancer of the cervix uteri, breasts, and lungs. Considering treatment of cancer in India, at present, there are very few centers in the country treating cancer patients with the radiation therapy facilities.⁴ With minimal

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number of cancer centers and maximum number of patients, it is difficult to provide quality service to the patients. It is believed that the etiology of oral

Table 1: Questionnaire

QUESTIONS	YES	NO
Aware about oral cancer	93%	07%
Knowledge about risk factors	96%	04%
Knowledge about supportive care	91%	09%
Knowledge about treatment cost	77%	23%
Where to refer patient	72%	28%
Prefer to have CDE regarding oral cancer diagnosis and treatment	96%	04%

consumption are the major risk factors. Other risk factors include betel nut, human papilloma virus, herpes simplex type I and Epstein Barr virus, dietary deficiency, previous history of oral cancer, , marijuana, UV light, irradiation, mouth rinses containing alcohol, candidiasis, diabetes, free radicals, HIV infection, positive family history, poor oral hygiene and age over 40 years.³ Among the various risk factors for cancers, the most common identified in India are smoking followed by illiteracy, lack of awareness, poor hygiene, and low economic status.⁴ Attempts to raise oral cancer awareness of both public and health professionals have been made in many countries to counteract the problem of oral cancer mortality. Deficiencies in training, which hinder the recognition and supportive care of lesions may also contribute to the delayed diagnosis and discomfort of patients along with other factors.³

The objective of this study was to assess the knowledge and awareness about oral cancer and supportive care among undergraduate dental students.

MATERIALS AND METHOD

A questionnaire-based study comprising of 12 questions was carried out in clinically posted dental students of third year and final year students of Hazaribagh Dental College between July 2018 – Decemebr 2018. The total number of participants were 100. Informed consent was taken from the respondents before administration of the questionnaire. We designed the questionnaires to assess the knowledge, practices, and opinions regarding oral cancer prevention early detection

cancer is multifactorial and that the process is a multiple, stepwise one. Tobacco, alcohol

and supportive care. The items included in the questionnaires assessed the knowledge of signs, symptoms, and risk factors for oral cancer and clinical practice technique of oral cancer examination. Questions regarding importance of family history, personal history, awareness towards risk factors of oral cancer, whether patients were informed about risk factors of oral cancer or not were asked. Furthermore, to assess the knowledge amongst students, questions related to awareness of clinical signs, treatment modalities and treatment cost of oral cancer were asked. Also students were asked whether they would like more training on diagnosis and supportive management of oral cancer, if they were aware as where to refer the patients with oral cancer. Opinion was taken on whether they thought dentists were the first personal to identify oral cancer at its early stage. The questionnaire was subjected to statistical analysis. Data were statistically analyzed using SPSS software version 17.

RESULTS

The total sample size was 100, out of which 32were males and the majority were females (68). The mean age of participants was 21.5 ($\pm$ 2.5). Majority of students were aware of oral cancer (93.0%) and recognized signs and symptoms of oral cancer. A satisfactory knowledge was observed on risk factors (96%) and on supportive care (91%); unsatisfactory knowledge was observed regarding treatment cost (77%), (72%) were unsure about where to refer the patients with oral cancer (figure 2, 3). 96% of students preferred to have continuing

dental education in oral cancer diagnosis and supportive care available. (Table 1).

DISCUSSION

Oral cancer is one of the most fatal health problems faced by mankind and is the sixth most common cause of cancer related deaths.^{5,6,7} Potentially malignant disorders (PMDs) are oral lesions and conditions associated with a higher risk of malignant transformation. Early detection, treatment and identification of patients at risk remains the most important approach for reducing the risk of malignant transformation associated with PMDs.

Majority of undergraduate students were aware of the main risk factors. Rate of awareness for risk factors in oral cancer was similar to study done by Awan et al in 2014⁸ which reported that 93.9% of undergraduate students were aware regarding risk factors. In our study 96% of students preferred to have more training regarding diagnosis of oral cancer, which is more than the study conducted by Hamdy B et al (2016)⁹ which shows 77.7% students wanted training for oral cancer diagnosis. On the other hand, several aspects like clinical signs of oral cancer, treatment protocol and referrals need to be improved. Continuing dental education programs and workshops on oral cancer should be carried out to enhance the knowledge and awareness of the undergraduate students.¹⁰ Although the basic knowledge of the students was good, it was not adequate enough and practices about risk factors need to be reinforced among these students so that they can help the patients in tobacco and alcohol cessation and contribute in the prevention of oral cancers. Also though the level of knowledge amongst students increased with academic year, educators and policy-makers need to place greater emphasis on oral cancer education and training in dental schools.^{10,11} The dental curriculum for students should have more emphasis on diagnostic and prognostic factors of oral cancer as well as supportive care. Morbidity and mortality are likely to be reduced if future dentists know how to prevent and detect oral cancer.^{12,13} A comprehensive oral cancer examination and risk assessment are measures that may lead to early detection and prevention of oral cancer as many experts agree that the key is not necessarily

identifying oral cancer but identifying tissue that is not normal and taking appropriate action.^{7,14}

CONCLUSION

Early identification of oral cancerous lesions reduces rates of morbidity and mortality, increases the quality of life and lowers treatment costs. Education of future dentists starts from dental school and recent updates needs to be reinforced among students along with advanced training in detection and palliative care of cancer. The limitation of this study is that it was based on a cross-sectional survey of 100 dental students attending one dental school, therefore, the findings cannot be generalized to other dental schools. Hence, a further study on the knowledge of oral cancer and supportive care knowledge is desirable.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

REFERENCES

1. Lachlan MC, Graham RO; Oral cancer awareness of undergraduate medical and dental students. BMC Medical Education. 2007; 7: 44.
2. Warnakulasuriya KA, Harris CK, Scarrott DM, Watt R, Gelbier S, Peters TJ et al.; An alarming lack of public awareness towards oral cancer. Br Dental J., 1999; 187(6): 319-322.
3. Okoh M, Enabulele J. Knowledge and practices regarding oral cancer among graduating dental students. Indian J Oral Sci 2015;6:14-8
4. Madan A, Sandhya A. Oncology in Nepal. South Asian J Cancerv.1(1); Jul-Sep 2012.
5. Nandita S et al. Oral Cancer Awareness among Undergraduate Medical Students of Dakshina Kannada, India. Scholar journal of Applied Medical Sciences. 2013;1(5):632-636
6. Byakodi R, Byakodi S, Hiremath S, Byakodi J, Adaki S, Marathe K et al.; Oral Cancer in India: An Epidemiologic and Clinical Review. Journal of Community Health. 2012, 37 (2): 316-319
7. Gajendra S, Cruz GD, Kumar JV. Oral cancer prevention and early detection: knowledge,

practices, and opinions of oral health care providers in New York State J Cancer Educ. 2006 Fall;21(3):157-62.

8. Awan KH, Khang TW, Yee TK, Zain RB. Assessing oral cancer knowledge and awareness among Malaysian dental and medical students. Journal of Cancer Research and Therapeutics. 2014;10(4):903-907

9. Hamdy B, Almarhoumi A, Arnout EA. Awareness of Undergraduate Dental Students at Taibah University toward Early Detection of Oral Cancer. J Dent Health Oral Disord Ther. 2016; 5(2)

10. Kujan O, Alzoghaibi I, Azzeghaiby S, Altamimi MA, Tarakji B, et al. Knowledge and attitudes of Saudi dental undergraduates on oral cancer. J Cancer Educ. 2014; 29(4): 735-738

11. Fotedar S, Bhardwaj V, Manchanda K, Fotedar V, De Sarkar A, et al. Knowledge, attitude and practices about oral

cancers among dental students in HP Government Dental College, Shimla Himachal Pradesh. South Asian journal of cancer. 2015; 4(2): 65-67

12. Joseph BK, Sundaram DB, Ellepola AN. Assessing oral cancer knowledge among undergraduate dental students in Kuwait University. Journal of Cancer Education. 2015; 30(3): 415-420.

13. Carter LM, Parsonage Grant S, Marshall A, Achal KS, Kanatas A. Oral cancer teaching of medical students in the UK: time for a new approach? J Cancer Educ.2013; 26(2): 308-314.

14. Silverman S, Jr Demographics and occurrence of oral and pharyngeal cancers: the outcomes, the trends, the challenge. J Am Dent Assoc. 2001;132:75-85.