

Original Article**Awareness and Knowledge of Oral Cancer in Patients Visiting Nobel Medical College Teaching Hospital**Raj Kumar Jha* ¹, Dharendra Kumar Giri ²¹Department of Community Dentistry, Nobel Medical College Teaching Hospital, Biratnagar, Nepal, ² Department of Periodontics Nobel Medical College Teaching Hospital, Biratnagar, NepalArticle Received: 26th January, 2022; Accepted: 18th April, 2022; Published: 30th June, 2022DOI: <https://doi.org/10.3126/jonmc.v11i1.45957>**Abstract****Background**

Oral cancer is one of the most common life-threatening conditions. Lack of awareness, knowledge, risk factors and early sign and symptom of oral cancer. Thus the aim of present study was to evaluate the awareness and knowledge about oral cancer among patients.

Materials and Methods

The descriptive cross-sectional study was done in Nobel Medical College Teaching Hospital, Biratnagar, Nepal from December 2020 to February 2021. Approval was acquired from Institutional Review Committee. A total of 300 patients above 25 years of age group were included in the study. Self-administered questionnaire was prepared and distributed to obtain information about patient's age, gender, education level and occupation. The questions regarded habits, awareness of oral cancer, knowledge of the risk factors, signs and symptoms and source of information about oral cancer.


Results

A total of 300 patients participated in this study out of which male was 70%, and the female was 30%. The result of awareness questionnaire showed that 65% of the respondents were heard about oral cancer. The study revealed that 70.3% and 62.6% respectively patients were able to correctly identify tobacco and smokeless tobacco as risk factor and 64% and 53.5% respectively was able to correctly identify white patch and red patch as signs and symptom of oral cancer. Majority of the respondent 46% yielded awareness and knowledge of oral cancer from media.

Conclusion

The present study shows the dental patients had lack of awareness and knowledge about the risk factors and signs and symptom of oral cancer.

Keywords: Awareness, Knowledge, Oral Cancer

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Citation

Jha RK, Giri DK, Awareness and Knowledge of Oral Cancer in Patients Visiting Nobel Medical College Teaching Hospital, JoNMC. 11:1 (2022) 52-55.



Introduction

Oral cancer is a serious and growing problem in many parts of the world. Oral cancer is the sixth most common cancer in the world. The annual estimated incidence is around 275,000 for oral cancer. The areas characterized by high incidence rates for oral cancer are found in the Southeast Asia [1]. Nepal does not have any well documented data regarding the frequency of oral cancer. However, a multi-institutional hospital based study has shown cancer of oral cavity to be the second most common in males.

Oral cancer has a direct relationship with oral habits. Moreover, inadequate knowledge about the disease and lack of awareness about its risk factors play vital role in increasing incidence of oral cancer [2]. The etiology of oral cancer is multi-factorial, but the most important risk factors are tobacco use, excess alcohol consumption, betel quid chewing, and combinations of these habits. Human papilloma virus infection is implicated mainly in oropharyngeal cancer, and ultraviolet light is the main factor in lip cancer [3]. Lifestyle behavior risk factors associated with oral cancer and other determinants of the disease are interrelated with public knowledge of this disease. Age, gender, tobacco, alcohol are among the known risk factors for oral cancer [4]. The lack of public awareness of the signs, symptoms and risk factors associated with oral cancer is believed to be a potent barrier for the early detection of oral cancer [5]. Therefore the objective of this study was to evaluate the awareness and knowledge about oral cancer among patients visiting Nobel Medical College Teaching Hospital, Biratnagar, Nepal.

Materials and Methods

The descriptive cross sectional study was conducted in the outpatient department of Nobel Medical College Teaching Hospital, Biratnagar, Nepal from December 2020 to February 2021. Ethical approval for the study was obtained from the Institutional Ethical review board of Nobel Medical College Teaching Hospital All patients were above the age of 25years with their written consent and who were willing to participate were included in the study. A Structured questionnaire was used to collect data on the information about patient's age, gender, education level and occupation. The questions regarded habits, awareness of oral cancer, knowledge of the risk factors, signs and symptoms and source of information about oral cancer. For illiterate

patients an interviewer transferred the answers into the questionnaire. The questions regarding risk factors and patient's assumption of oral cancer were closed ended.

The calculated sample size was 288 and convenient purposive sampling method was used. However, sample size 300 was taken for the study as we had collected more cases. The sample size was calculated by the formula $N = Z^2 pq/d^2$ where Z is the standard normal deviation (usually set as 1.96), d= degree of accuracy required (we take 10% error), p=proportion in the targeted population estimated to have a particular characteristics (since there is no reasonable estimation done in NMCTH, we use 50%) and q= 1-p. Exclusion criteria was age group less than 25 years of age, Data was entered in SPSS 20.0 software and analyzed. Descriptive data was presented in the form of tables and Graphs.

Results

A total of 300 patients participated in this study, out of which 25-35 years was 105 patients, 36-45 years was 126 patients, 46-55 years was 39 patients, 56-65 years was 30 patients (Table-1) and male 210(70%) and the female 90(30%) (Graph 1). Among the respondents, 195(65%) of the patients aware of the oral cancer (Table 2). When asked about the risk factors of oral cancer, the most recognized risk factor were smoking (70.3%), smokeless tobacco (62.6%) and alcohol (59.5%). Only 32.7% could identify sun exposure as a risk factor in case of lip cancer. The respondents showed poor knowledge regarding sign and symptoms of oral cancer. (64%) and (53.5%) respectively were able to correctly identify white patch and red patch as signs and symptoms of oral cancer (Table 3).

Majority of the respondents yielded awareness and knowledge of oral cancer from media (46%), followed by a dentist and friends/family (22%) and (17%) respectively, and rest (15%) from others (Graph 2).

Table 1: Distribution of study population according to age

Variables	Category	n	%
Age	25-35yrs	105	35%
	36-45 yrs	126	42%
	46-55 yrs	39	13%
	56-65 yrs	30	10%



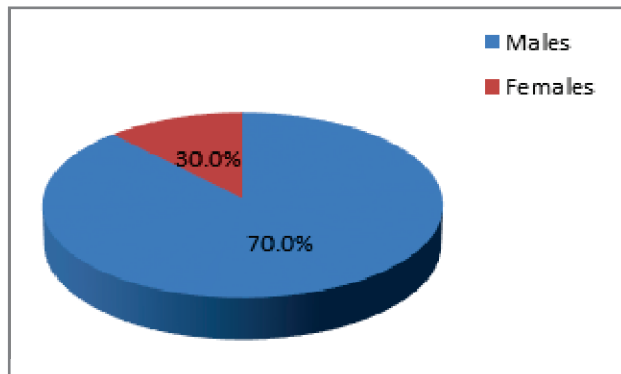


Figure 1: Distribution of study population according to sex.

Table 2: Percentage and frequencies distribution regarding awareness of oral cancer.

ITEMS	Yes %(n)	No %(n)
Awareness of Oral Cancer	65 (195)	35 (105)

Table 3: Percentages and frequencies of recognized signs, symptoms and risk factor of oral cancer.

Variables	Yes %(n)	No %(n)	Do not know%(n)
Risk factor of Oral Cancer			
Smokeless tobacco use	62.6(188)	17.2(52)	20.2(60)
Smoking	70.3(210)	12.4(38)	17.3(52)
Alcohol	59.5(179)	15.4(46)	25.1(75)
Old age	54.1(162)	13.6(41)	32.3(97)
Sun exposure	32.7(98)	10.1(30)	57.2(72)
Sign and symptoms of Oral Cancer			
Non healing ulcer	29.8(90)	15.1(45)	55.1(165)
Swelling	56(168)	12(36)	32(96)
Red patch	53.5(161)	21.1(64)	25(75)
White Patch	64(192)	24(72)	12(36)

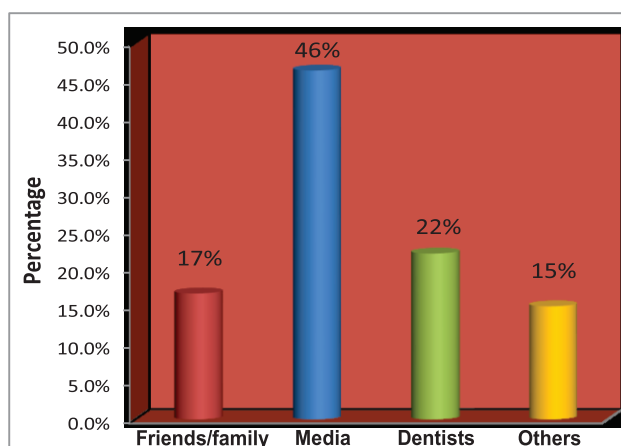


Figure 2: Source of information about oral cancer.

Discussion

The aim of the present study was to evaluate the level of awareness and knowledge about oral cancer among the patients visiting Nobel Medical College and Teaching Hospital. In the present study (65%) of patients were aware of the term oral cancer, where similar results reported by Srikanth et al[5]. This could be because of lack of information given to the patients and also may not everyone feel interested to gain the knowledge about oral cancer. The results of the present study showed insufficient knowledge regarding the clinical signs and symptoms of oral cancer. Only (29.8%)of the patients identified non healing ulcer as a sign of oral cancer and (53.5%) and 64% of the patients knew that red and white lesions can be sign of oral cancer which is similar to study done by Joseph [6] and Devadiga [7].

Treatment of red and white lesions will be more effective if they are detected at early stages when they are small. In developing countries, more than 50% cases of oral cancers are detected only after they have become advanced. Cancers in the advanced stage are more painful, disfiguring and the treatment necessary is radical and expensive with a low survival rate. Hence raising public knowledge and awareness and educating the public on the early signs of cancer is mandatory for early diagnosis and treatment of disease. Patients who visited their dentists regularly have shown better level of knowledge. Socioeconomic factor is one of the major reasons which affect the public oral cancer knowledge and awareness. In determining the source of information on oral cancer media (46%) played a major role which is similar to study done by Bajracharya [2] and Park et al [8]. Public knowledge and awareness of the risk factors of oral cancer is one of the most important steps for successful prevention of oral cancer in the world. In the present study, the knowledge regarding risk factor was not satisfactory. (59.5%) of patients knew that alcohol consumption is also a risk factor and (70.3%) of patients identified tobacco use as risk factor. These findings were similar to study done by Al-Maweri et al[3] and Warnakulasuriya et al[9]. The awareness of tobacco as a risk factor of oral cancer could be attributed by anti-tobacco campaign and oral health education .Some patients knew that smoking and alcohol were risk factor for oral cancer but did not change behavior. Further studies required to find out the reasons behind the continuing of high –risks habits after knowledge also.

Television, newspaper should contain advertisement with hazardous effect of tobacco and its risk



factor on healthy lifestyle and educating the public and raising about knowledge and awareness about oral cancer. However in the present study results also showed that only (22%) of the patients have received counseling by a dentist. This finding is similar to the study done by Villa et al[10]. Hence, there is a necessity to be as part of dental professionals to inform and educate their patients better about oral cancer.

Although the present study was a hospital based survey it revealed some important aspects of the knowledge, awareness, risk factor and signs and symptom of oral cancer. This is the limitation of our study in order to further assess public awareness; a well-designed population-based study is needed as such our results may not be generalizable to the whole population in Nepal. Nevertheless, from our preliminary data the following recommendations can be made that the patients must be made aware of preventive strategies, symptoms and signs of oral cancer, attractive and informative reading materials should be provided to the patients especially regarding pre-cancer and well-organized low-cost educational programmes should be designed and launched to reach less privileged groups in our society.

Conclusion

This study has highlighted that the dental patients had a lack of awareness and knowledge about risk factor and signs and symptom of oral cancer. There is a need to educate the dental patients through oral cancer preventive awareness programmes using the mass media especially to high-risk groups. Dental professionals efforts also needed to improve detect oral cancer at early stages.

Acknowledgement: None

Conflict of interest: None

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