

Journal of Nobel Medical College

Available Online: www.nepjol.info, www.nobelmedicalcollege.com.np

Volume 7, Number 1, Issue 12, January-June 2018, 60-64

Original Article

Oral Cancer: Awareness Among People of Biratnagar

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Received; 20th May, 2018; Revised: 16th June, 2018; Accepted: 28th June, 2018

DOI: <http://dx.doi.org/10.3126/jonmc.v7i1.20850>

Abstract

Background: Increased use of tobacco and tobacco products result into increment of patients with oral cancer. Many people are still unaware of the consequences of chewing tobacco. Approximately 19% of participants had adequate knowledge of awareness, large number of participants, i.e., 73% had moderate knowledge of awareness and 8% of the participants had inadequate level of awareness about oral cancer.

Methods and materials: Analytical cross-sectional research design was used for the study. Samples were selected by non-probability purposive sampling technique. Structured questionnaire was used to collect data from respondents. Frequencies, mean and standard deviations were used to describe the socio-demographic variables. Independent t-test and one-way ANOVA test were used to find the main difference of awareness scores by socio-demographic variables.

Results : Among 90 participants, 18% had adequate level of awareness, 73% had moderate and 7.8% of participants had inadequate level of awareness regarding oral cancer.

Conclusion: The study showed that awareness regarding oral cancer among the people of Biratnagar Metropolitan City is moderate. The study emphasizes that the effects must be made to make people aware of oral cancer.

Key-words

Awareness, Oral cancer, Oral cavity

Introduction

Cancer is an abnormal, excessive and disorganized growth of cells. The abnormal growth of cells destroys the normal structure and functions of affected tissues. Oral cancer is the cancer of the oral cavity which includes, tongue, floor of mouth, buccal mucosa, hard and soft palates, pharynx, and tonsils. The most common hazards with low prognosis disease which still remains as cause of concern to medical and common society is oral cancer which is one of the fatal diseases. [1]

According to National Health Policy, oral cancer is one of the most leading causes of

mortality and morbidity and is the most common forms of cancer in men and the third most common cancer in females in Nepal. [2]

Oral cancers are the part of a group of cancers commonly referred to as head and neck cancers, and of all head and neck cancers, they comprise about 85% of that category. Death rate associated with oral cancer is high due to the cancer being discovered late in its development. Oral cancer is discovered late when the cancer has metastasised to another location, mostly the lymph nodes of neck. Prognosis at this stage is very poor. Oral cancer is

dangerous because it may not be noticeable by the patient in early stage, as it can prosper without producing symptoms.

Worldwide in 2013, oral cancer resulted in 135,000 deaths up from 84,000 deaths in 1990. The American Cancer Society, USA, has estimated that 49,750 Americans had been diagnosed with oral cancer in 2017. It caused over 9,750 deaths killing roughly 1 person/hour. Of those newly diagnosed 49,750 individuals, only half of them will live up to 5 years. [3]

The rampant and excessive use of tobacco and tobacco products and chewing of tobacco are the causes of oral cancer. Knowingly and unknowingly, people are consuming tobacco and putting their lives in risk.

Oral cancer is the 16th most common cancer in the UK and it is 19th most common cause of death due to cancer. [4] According to WHO Report 2005, cancer is the second leading cause of death globally and was responsible for 8.8 million deaths in 2015. Globally, mostly 1 in 6 deaths is due to cancer. Approximately, 70% of deaths from cancer occur in low or medium income countries. Around one-third of deaths from cancer are due to 5 leading behavioural and dietary risks; high body mass index, low fruit and vegetable intake, lack of physical activity, tobacco use and alcohol use. Oral cancer is more common in developing rather than in developed countries and occurs more often in people from the lower end of the socio-economic scale. [5]

Oral cancer is one of the major burden of cancer. Consumption of tobacco and tobacco products and alcohol is regarded as a major risk factors for oral cancer. The population attributed to risk of smoking and alcohol consumption have been estimated to be 80% for males and 61% for females. The evidence that smokeless tobacco causes oral cancer was confirmed

recently by the international agency for research on cancer. [6]

Oral cancer ranks in the top three of all cancers in India, which accounts for over 30% of all cancers and oral cancer control is quickly becoming a national priority. [7] Various studies have been done in national and international level and have shown that oral cancer is significant component of the global burden of cancer. This study in a community provides information about level of awareness regarding oral cancer and avoid the habit of tobacco indulgence in any form.

Materials and method

Permission was obtained from Institutional Review Committee (IRC) of Nobel Medical College Teaching Hospital and concerned authority of Biratnagar Municipality. Verbal consent was taken from each participant and confidentiality was maintained throughout the study period.

Research was conducted in Biratnagar Metropolitan City from January 29, 2018 to February 27, 2018. All the people of above 16 years of age residing in a particular ward were selected and the number of respondents included in the study were 90. Non-probability purposive sampling technique was used for selection of both ward and sample. Data were collected by awareness-based questionnaire regarding oral cancer. Awareness questionnaire contained meaning, causes, risk factors, clinical features, management and prevention. It consisted of 25 questionnaires which were in terms of single response questions. One correct response carried one mark and wrong response carried zero mark. Awareness was measured in terms of awareness score to interpret the awareness; the scores were distributed as follows:

Adequate: 75%

Moderate: 50-75%

Inadequate: <50%

Results

Table I: Awareness percentage of oral cancer

Characteristics	Response	Frequency N = 90	Percent (%) 100
Heard the term cancer	Yes	90	100
Heard of oral cancer	Yes	90	100
Meaning of oral cancer	Can occur in any part of oral cavity and throat	60	66.7
More prone gender	Male	78	86.7
More vulnerable age group	Above 45	30	33.33
Is oral cancer related to oral hygiene	Yes	54	60
	No	36	40
Occur only in tobacco users	Yes	42	36.7
	No	48	53.3
How long does it take to cause oral cancer among alcohol and tobacco users	Above 20 years	39	46.7

The above table depicts all the participants had heard the term, cancer and oral cancer. The majority of the participants said that oral cancer is more prone to males. Only 33.3% of participants said people above 45 years of age are more vulnerable to oral cancer and 60% of the participants said that oral cancer is reflected to oral hygiene.

Table II: Percentage of respondents' knowledge of risk factors and clinical factors of oral cancer

Characteristics	Response	Frequency N = 90	Percent (%) 100
Chronic mouth infection	Yes	59	65.6
	No	31	34.4
Which factor mostly increases the risk	Previous diagnosis of oral cancer	20	22.2
Most common tobacco product	<i>Paan, Guthka</i>	31	34.4
Chronic facial sun exposure is related to cancer of which part	Lip	24	26.7
Does risk increase with advancing age	Yes	63	70
	No	27	30
Early sign	Skin lesion,	61	67.8

	lump or ulcer that does not resolve in 14 days		
Advancing sign	A lump in the neck	17	18.9
White and red patches in the mouth are infection of oral cancer	Yes	34	37.8
	No	56	62.2
Weight loss	Yes	45	50
	No	45	50

The table depicts that many of the participants said chronic mouth infection is a risk factor for oral cancer. Only 34.4% of the respondents said *paan* and *guthka* are the most common tobacco products to cause oral cancer, but majority of the respondents said risk of oral cancer increases with age among tobacco consumers.

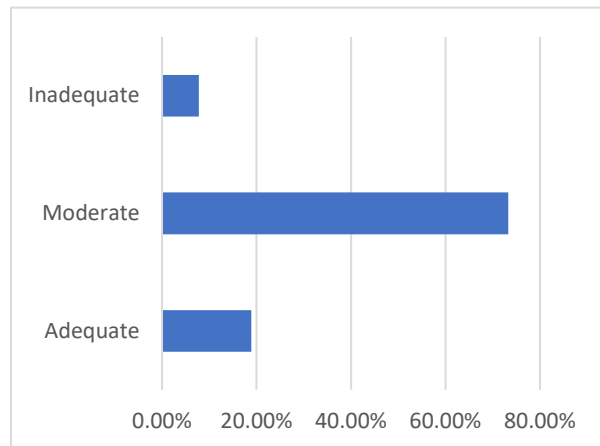
Table III: Awareness percentage regarding prevention of oral cancer

Characters	Response	Frequency N = 90	Percent (%) 100
Can oral cancer be prevented if detected early	Yes	60	66.7
	No	30	33.3
Most common measure to prevent oral cancer	Avoid tobacco consumption	59	65.6
Can consumption of fruits and vegetables prevent from oral cancer	Yes	56	62.2
	No	34	37.8
Overall prognosis	Bad	62	68.9

66.7% of the participants said that oral cancer is preventable if detected in earlier stage. 65.6% respondents said that avoidance of consumption of tobacco and tobacco products is the most important preventive measure. 62.2% of the respondents said consumption of fruits and vegetables prevent oral cancer and 68.9%

of the participants said prognosis of oral cancer is poor.

Fig. I: Level of awareness among respondents



The above table shows that 18.9% had adequate level of awareness, 73.3% had moderate level of awareness and 7.8% of the participants had inadequate level of awareness.

Discussion

8.8 million people worldwide died of cancer in 2015 which is only 1 in 6 of all global deaths and \$1.16 trillion is the estimated total annual economic cost of cancer in 2010, and 30-50% of cancer could be prevented. [8]

Cancer is a genetic term for a large number of diseases showing growth of abnormal cells. Other terms commonly used to indicate cancer include malignant tumours and neoplasms. Cancer can affect any part of the body. It is the second leading cause of deaths globally. According to current evidences, half of the cancer deaths are preventable by avoiding risk factors including, consumption of tobacco, alcohol, maintaining healthy body weight, exercising regularly and by shifting towards healthy vegetables.

In order to decrease the significant disability, suffering and death due to cancer, early diagnosis, screening,

treatment and palliative cares are needed. [8]

Oral cancer may arise as a primary lesion, signatory in any of the tissues in the mouth by metastasis and by the extension from neighbouring structures such as, oral cavity. In the early stages, the oral cancer is unnoticeable, and painless. Around 75% of oral cancers are linked to tobacco use and excessive consumption of alcohol. Other factors include poor oral hygiene, ill fitting dentures, poor nutrition and some chronic infections. [9]

Chewing betel and *paan* is known to be a strong risk factor for developing oral cancer. In India where such practices are common, oral cancer accounts for 40% of all cancer compared to just 4% in the UK. Men are affected twice as often as women.

Tobacco contains over 60 known carcinogens. Use of chewing tobacco or sniffing causes irritation from direct contact with the mucous membranes. Tobacco use in any form by itself and even more so in combination with heavy alcohol consumption, continues to be an important risk factor for oral cancer. In a study of Europeans, smoking and other tobacco use was associated with 75% of oral cancer causes, caused by irritation of mucous membranes of mouth from smoke and heat of cigarettes, cigars and pipes. [10]

The above paragraph highlights the importance of awareness of causes of oral cancer. Despite the devastating consequences of oral cancer, 73.3% of participants had only moderate knowledge about oral cancer and 7.8% of the participants had inadequate knowledge about oral cancer. Similar descriptive study was conducted on "Awareness and knowledge on oral cancer among dental patients of Riyadh", which showed 62.4% of the participants were aware of oral cancer which is in contrast with the results of our study. [11]

Differences in level of education, nutritional status and standard of living conditions might have been the causes of discrepancies.

The majority of the participants in our study were aware of the cancer and people consuming way too much alcohol and tobacco products are more likely to suffer from oral cancer when their age begins to advance but they still continue to consume them despite of their adequate knowledge.

Conclusion

The study reveals that majority of participants knew what cancer is and bad habits that drives a person to become a sufferer of oral cancer. Many of the respondents responded by signing that cancers can be prevented if identified earlier and avoidance of tobacco is the most important method of preventing oral cancer.

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