Original Research

Awareness and knowledge of oral cancer among staff and patients visiting a hospital in a north Indian town

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ABSTRACT:
Introduction: Oral cancer is one of the most common cancer in many countries around the world. Despite being aware of this we as medical practioners are still not able to prevent it or reduce its incidence. So, public awareness about this becomes an utmost necessity. **Materials and methods:** A questionnaire on oral cancer awareness, its symptoms, causative agents, and treatment possibility was conducted in a hospital in North India. **Results:** A total of 160 persons (2 groups) were engaged in our survey and based on the survey, results have been compiled and observations are made. **Conclusion:** Lack of awareness was noted among all individuals including staff and the public visiting the hospital. General public was found to be lacking even basic information which is an alarming situation. Aggressive awareness campaigning about oral cancer and its causes should be carried out.

INTRODUCTION

Oral squamous cell carcinoma (OSCC) represents one of the most common, yet scarcely known malignancies worldwide, affecting more than 300,000 individuals per year and causing 177,384 deaths annually, representing nearly 2% among all cancer sites[1].

Cancer is Latinized from the Greek word 'Karkinos' meaning crab, denoting how carcinoma extends its claws like a crab into the adjacent tissues[2].Oral Cavity includes, Lips, anterior two thirds of tongue, Gingiva, Buccal mucosa (the lining of the inside of the cheeks), Floor of the mouth under the tongue, Hard palate (the front, bony part of the roof of the mouth), Soft palate (the muscular back portion of the roof of the mouth), Retro-molar trigone (the small area behind the wisdom teeth). Oral cavity cancer may appear in any of these tissues of the oral cavity. Oral cavity is easily accessed by people themselves while brushing, eating food still oral cancer remains undiagnosed which shows unawareness about its symptoms, whom to consult when anything unusual appears in mouth.

Though, oral cancer concerns us all be it dental and medical fraternity and our society at large, still we are unable to prevent its rise. Alongside with exposure to risk factors, availability and access to clinicaldiagnosis and treatment, an important factor affecting mortality is the still scarce awarenessof the pathology and its early signs, leading to important delays in diagnosis and worseningsurvival rates[3].We all know that when a cancer patient is diagnosed with stage III or IV,things appear grim so an urgent need to spread awareness and knowledge is a must. An early diagnosis will not only save a patient but also decreases burden on our tertiary institutions and scarce resources in a developing country like ours. Late diagnosis increases the cost of care with prolonged hospitalization andthe need for more complex surgical interventions and reconstructions[4]. A recent systematicreview investigated on the causes of delayed diagnosis in OSCC patients and concluded thatthe scarce knowledge of the population emerged as the main factor[5].

Patients with habits may develop Leukoplakia, Erythroplakia, Oral Submucous Fibrosis first and then

dysplastic changes or OSCC May develop in these lesions. Despite these clinically visible lesions we are not able to catch it at early stage. Informative campaigns about OSCC and other cancer typescharacteristics and risk factors are performed worldwide, but theirefficacy in reducing the time occurred by symptoms onset and referralto a proper physician are difficult to evaluate[6]. Therefore aim of this study is to assess the level of knowledge about oral cancer so that future strategy can be carved out accordingly.

MATERIALS AND METHODS

A questionnaire on knowledge and awareness on existence of oral squamous cell carcinoma, its risk factors, and its treatment was designed by the authors taking into account their clinical experiences with the patients throughout their practice. There were 16 questions asked and their responses were noted in the form of yes, no, and do not know. Participants were given the flexibility to choose multiple options in certain questions.

RESUTS

In our study 60 people (GROUP 1) (24 males and 36 females) were from hospital setup and 100 (GROUP 2)(57 males and 43 females) from routine OPD visiting general public. Age range of Group 1 was found to be (22 to 57 years) and Group 2 (18 to 72 years). The questionnaire and responses of the participants are shown in below given tables.

TABLE 1		
	GROUP 1(60)	GROUP 2(100)
Q2. Level of Education –		
a. Matric/10th -	00	17
b. 12th -	02	31
c. Diploma -	24	20
d. Degree/ Post Graduation	34	32
Q5. Source of information about oral cancer or related disease which can lead to cancer: - (YOU CAN TICK MARK MULTIPLE OPTIONS)		
1. Family -	05	10
2. Friends/society -	27	25
3. Medical Practitioners -	40	53
4. Dentist -	45	31
5. Midwife/A.S.H.A Worker/Anganwadi Worker -	26	28
6. Newspaper/TV/Advertisement -	37	58
Q6. Habit status –		
1. Tobacco smoking -	24	43
2. Alcohol -	30	51
3. Betel nut Chewing -	10	22
Q16. According to your knowledge how oral cancer patient can present?		
1. Pain -	36	27
2. Ulcer-	45	50
3. Swelling -	57	65
4. White/ red patch in mouth -	41	19
5. Mobile teeth -	15	8

TABLE 2			
		GROUP 1	GROUP 2
Q 3. Are you aware that a disease like oral cancer exists or not?	YES	58	80
	NO	02	07
	DO NOT KNOW	00	13
Q4. Are you aware of any condition (disease) of mouth that can lead to Oral Cancer?	YES	54	35
	NO	06	40
	DO NOT KNOW	00	25
Q7. Do you know that tobacco smoking can lead to oral cancer?	YES	59	73
	NO	01	11
	DO NOT KNOW	00	16
Q8. Do you know that tobacco/betel nut chewing can lead to	YES	59	77

oral cancer?	NO	01	08
	DO NOT KNOW	00	15
Q9. Do you know a virus can also cause oral cancer?	YES	27	18
	NO	21	59
	DO NOT KNOW	12	23
Q10. Do you know drinking alcohol can lead to cancer?	YES	36	44
	NO	23	22
	DO NOT KNOW	01	34
Q11. Do you know non healing ulcer of mouth can lead to oral cancer?	YES	56	50
	NO	04	08
	DO NOT KNOW	00	42
Q12. Do you know sharp tooth margins can lead to ulcer which can lead to oral cancer?	YES	42	57
	NO	13	08
	DO NOT KNOW	05	35
Q13. Do you know sharp dental prosthesis (denture) can lead to ulcer which can lead to oral cancer?	YES	45	56
	NO	13	09
	DO NOT KNOW	02	35
Q14. Do you know that oral cancer is treatable or not?	YES	54	51
	NO	03	20
	DO NOT KNOW	01	29
Q15. Do you know that earlier detection of oral cancer can save a patient?	YES	59	37
	NO	00	42
	DO NOT KNOW	01	21

Our study has shown that level of awareness is less in general patients than persons working in a hospital so more focus should be on the general population who can be sensitised about the causes and presentation of oral cancer.

DISCUSSION

Oral cancer(OC) can be caused by many things like :-
1) Tobacco - The habit of chewing betel nut leaves rolled with lime and tobacco, a mixture known as pan, results in prolonged contact of the carcinogen with the buccal mucosa, which is thought to be the principal cause of OC in India. According to the Global Adult Tobacco Survey (GATS) conducted in 2016–17, the overall prevalence of smoking tobacco use is 10.38% and smokeless tobacco use is 21.38% in India. Of all adults, 28.6% currently consume tobacco either in smoke or smokeless form, including 42.4% of men and 14.2% of women[7]. Poor oral hygiene and dental sepsis is thought to promote carcinogenic action of tobacco[8]. 2) Alcohol - Studies have shown that individuals consuming more than 170 g of whisky daily have ten times higher risk of OC than the light drinkers[9]. Alcohol may have additive effect and it has been suggested that it facilitates the entry of carcinogens into the exposed cells, altering the metabolism of oral mucosal cells[10]. 3) Viral - HPV has been identified in approximately 23.5% of OC cases[11]. HSV-1 or "oral herpes" is commonly associated with sores around the mouth and lip and has been suggested to be a causative agent of OC[12]. 4) Heredity -It is now established that up to 10% of all cancers have a strong hereditary component. Role of genetic component in the development of OC is being suggested by several studies showing familial clustering[13].Alcohol and tobacco consumption can be controlled and good oral hygiene can also prevent certain infections so what's lacking is our sustained efforts to spread knowledge about the disease.

One of the major issues is the generally scarce knowledge of the existence of oral cancer both among patients and clinicians, causing delays in the request for a specific professional assessment[14]. Our study found that most of participants are aware of oral cancer showing the success of advertisements on cigarette packs, before a movie but knowledge about any mouth disease or condition that can lead to it is quite less among general public so awareness campaigns now should be focussed on ways a cancer can present in oral cavity and also habit counselling

Relationship of oral cancer with a virus was found to be new knowledge among many participants of both groups and many replied no, it cannot cause so this agent should also be brought to public knowledge. Right now most public advertisements solely focus on tobacco as its cause so information about others becomes a must.

Sankaranarayanan et al[15]reported thedistribution of oral malignancy in the Indian population asstage I (25%), stage II (17%), stage III (18%), stage IV (33%), andunknown (8%).Our study shows that group 1 people are aware of benefits of early diagnosis but group 2 doesn't and simply fears the term oral cancer and feels nothing can be done at any stage.Studies have shown that professional delay in diagnosis can vary from 4 days to 3.5 months[16].We feel that there is also a need of protocol for referrals from private dental and medical clinics to a fixed centre in each district so that no confusion should delay the urgent

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treatment needs of the patient. Follow up of patient should start from the point where it was first diagnosed. Initial lesion usually a small patch or ulcer or any form in which it has presented is usually considered harmlessYoung patients and those with lessened tobacco use may have lowered expectation of malignancy, thus considering initial symptoms to be harmless[17,18].This study shows that now high level of expertise is required for implementing oral cancer screening programs as diagnosis is not an easy task. Our study shows that Role of A.S.H.A and other health workers can be increased manifold and they should also be trained about the signs of oral cancer.

Large-scale awareness campaigns are extensively used to sensitizepopulation on cancer prevention and screening for early diagnosisespecially in the most frequent cancer types, leading to a decreasein their mortality[19].and our study also shows that people are becoming aware about the disease which is a positive sign.Oral cancer screening is the way ahead according to our study. Patients with tobacco habits should be screened and counselled once every year and persons with dental specialities related to diagnosis should be involved more actively in these screening programs. Our study results from group 2 shows that participants got less information on oral cancer from a dentist so involvement of dental specialists should be considered.The percentages of women who have ever undergone cervical, breast, and oral cavity screening in India were 1.9%, 0.9%, and 0.9%, respectively. About 1.2% of men participated in oral cavity screening[20]. So, the challenge of screening will always remain and must be worked upon because it can bring drastic reduction in mortality due to oral cancer cases.

CONCLUSION

Our questionnaire was designed to fulfil our objective of understanding the oral cancer awareness penetration in a hospital set up and society as a whole so that loopholes can be tackled and appropriate measures can be taken separately for each. We suggest more government sponsored programmes for oral cancer like on polio, tuberculosis eradication should be made.

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