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ORIGINAL ARTICLE

Knowledge, Attitude, and Practice regarding Management of Oral Cancer and Oral Precancerous Lesions among Oral Surgeons in Chhattisgarh State, India

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ABSTRACT

Aims and objectives: The present study is conducted to explore the knowledge, attitude, and practice regarding management of oral precancerous and cancerous lesions among oral surgeons.

Materials and methods: The present study is a cross-sectional, questionnaire descriptive study conducted in Chhattisgarh state, India. The study was conducted from April to May 2017. The study participants were dental specialists who had passed their master's degree in subject of oral and maxillofacial surgery.

Results: According to 30 (42%) oral surgeons, tobacco is the main etiology of oral cancer or precancerous lesions. Nonscrapable white lesions are the most common early manifestation of oral cancer as reported by 38 (52%) study participants. Majority of study participants [66 (92%)] agreed with the statement that prognosis of oral precancerous lesions and oral cancer depends on early detection. Only 18 (25%) study participants regularly read journals, read books, and attend workshops to keep updated about current knowledge about management of oral cancer and precancerous lesions.

Conclusion: It has been concluded that oral surgeons had a good knowledge, positive attitude, and good practices regarding the management of oral cancer and oral precancerous lesions among oral surgeons.

Keywords: Attitude, Knowledge, Oral cancer, Oral precancerous, Practice.

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INTRODUCTION

A precancerous lesion is "a morphologically altered tissue in which oral cancer is more likely to occur than its apparently normal counterpart." These precancerous lesions include leukoplakia, erythroplakia, and the palatal lesions of reverse smokers.[1] Oral cancer or oral squamous cell carcinoma (SCC) is defined as the type of head and neck cancer and is any cancerous tissue growth located in the oral cavity.[2]

Epidemiological studies have shown that cancer of the mucosa of the oral cavity and pharynx is becoming more common worldwide.[3] The incidence of oral SCC is rising in most countries, particularly in cohorts born after around 1915.[4-6] The precise reasons for these epidemiological changes remain unknown, but may reflect alterations in tobacco and alcohol habits, and aspects of social deprivation.[4,5]

It has been well recognized that the cancers of the oral cavity and the pharynx are a public health problem and as a result, there are a great number of deaths and people suffering from illnesses or disability in many countries. About 70% of the oral cancer patients present in the advanced stages.[7] Further, in the high incidence areas, a majority of the oral cancers arise from long-standing premalignant lesions.[8,9] It has been reported that a lack of awareness among the public about oral cancer and the associated risk factors are the primary reasons for the delayed presentation of oral cancer.[10] Effective management of oral premalignancy and malignancy requires accurate diagnosis of lesions by dental practitioners (DPs), and appropriate communication and referral between primary and secondary health care workers, although it is known that there can be a significant delay in the referral of patients with oral SCC to appropriate specialists.[11] Furthermore, DPs could potentially be important in any planned preventive or screening programs of premalignant and malignant oral diseases.

The assessment of the level of the knowledge, attitudes, and practice regarding management of oral precancerous and cancerous lesions among oral surgeons is

important for several reasons. Because the oral precancerous and cancerous lesions can be recognized and managed at an earliest stage, oral surgeons are one of the most likely groups of DPs who have a key role in managing oral cancer. Over the last decade, numerous published epidemiologic investigations which were conducted in several countries have examined the primary care physicians' knowledge and practice[12-16] and the oral cancer prevention and detection and management among dental health care workers.[16-26] The responses have differed by country, but those country-specific data are necessary for a public health planning. Not much studies till now were conducted in oral surgeons regarding their knowledge, attitude, and practices. Therefore, the present study was conducted to explore the knowledge, attitude, and practice regarding management of oral precancerous and cancerous lesions among oral surgeons.

MATERIALS AND METHODS

The present study is a cross-sectional, questionnaire descriptive study conducted in Chhattisgarh state, India. The study was conducted from April to May 2017. The study participants were dental specialists who had passed their master's degree in the subject of oral and maxillofacial surgery. The study included all the study participants working in private and government colleges and has their own private settings. Ethical clearance was obtained from the independent ethical committee. Study participants who had given their informed consent were included in the survey. Data of 102 oral surgeons which include name, e-mail id, and mobile no, who are presently working in Chhattisgarh state, were obtained from the Indian Dental Association branch, Raipur, Chhattisgarh. A self-designed questionnaire was mailed to the oral surgeons with a request to fill the survey form. The survey form was designed in English language. The purpose of the survey was explained in the mail to all study participants. Call backs were made to these dentists to improve the response rate. Out of 102 oral surgeons, 82 oral surgeons replied to the mail.

Before the survey, a pilot study was conducted on 20% of study participants to test the validity and reliability of questionnaire. Reliability of the questionnaire was determined by using test–retest, and the values of measured were: kappa (k) = 0.83; weighted kappa (k_w) = 0.78. Internal consistency of questionnaires was measured by applying Cronbach's alpha (α) and the value of $\alpha = 0.75$ was measured.

The questionnaire consists of 26 questions divided into four parts. The first part consists of seven questions of demographic details which consist of age, gender, socioeconomic status, years of experience, degree obtained from which college, number of patients of oral cancer or precancerous lesion per month seen. The second part consists of seven questions regarding their knowledge about management of oral cancer and precancerous lesions. The third part consists of six questions regarding attitude toward the management of oral cancer and precancerous lesion. The fourth part consists of six questions of practices in management of oral cancer and precancerous lesion.

Statistical Analysis

The data were entered in Microsoft Excel 2007. Descriptive statistics were applied and percentage and frequency were obtained and are presented in tables.

RESULTS

Table 1 shows that majority of study participants [50 (69%)] were more than 30 years of age; 55 (76%) study participants were male. Among all the study participants, 38 (53%) had experience of less than 10 years. Most of study participants 45 (60%) were of middle socioeconomic status; 59 (82%) study participants had degree obtained from private college. Most of study participants, 36 (50%), see two to five patients with oral cancer or precancerous lesion per month. Majority of study participants, 64 (89%), had private practice.

Table 2 shows knowledge among study participants regarding the management of oral precancerous and cancerous lesions among oral surgeons. According to

Table 1: Demographic details of study participants

Demographic variables		*Number (%)*
Age (years)	Less than 30	22 (31)
	More than 30	50 (69)
	Total	72 (100)
Gender	Males	55 (76)
	Females	17 (24)
	Total	72 (100)
Years of experience	Less than 10 years	38 (53)
	More than 10 years	34 (47)
	Total	72 (100)
Socioeconomic status	High	21 (29)
	Middle	45 (60)
	Low	06 (11)
	Total	72 (100)
Degree obtained from which college	Government	13 (18)
	Private	59 (82)
	Total	72 (100)
No of patients with oral cancer or precancerous lesion per month seen	1	34 (47)
	2–5	36 (50)
	More than 5	02 (3)
	Total	72 (100)
Type of practice	Public	08 (11)
	Private	64 (89)
	Total	72 (100)

Table 2: Knowledge regarding the management of oral precancerous and cancerous lesions among oral surgeons

Knowledge questions		*Number (%)*
What are the main etiologies of oral cancer or precancerous lesions?	Tobacco	30 (42)
	Old age	04 (6)
	Chronic irritation	20 (28)
	All the above	18 (24)
	Total	72 (100)
Most common early manifestation of oral cancer	Red erosions	20 (28)
	Vesiculobullous lesions	12 (17)
	Nonscrapable white lesions	38 (52)
	Scrapable white lesions	02 (3)
	Total	72 (100)
What is the main common site of oral cancer?	Floor of mouth	28 (39)
	Tongue	32 (43)
	Upper lip	7 (10)
	Commissure	5 (8)
	Total	72 (100)
What are the main methods of examination of malignant and premalignant oral lesions?	Tongue mobility	05 (8)
	Use of toluidine blue	13 (18)
	Visual and palpation	11 (15)
	Biopsy	25 (35)
	All the above	18 (24)
	Total	72 (100)
Which precancerous lesion has most malignant potential?	Leukoplakia	28 (39)
	Lichen planus	12 (17)
	Erythroplakia	30 (42)
	Leukoedema	02 (2)
	Total	72 (100)
What are the main current methods of management of oral precancerous lesions?	Deaddiction	24 (33)
	Surgical removal	12 (17)
	Medical therapy	36 (50)
	Total	72 (100)
What are the main current methods of management of oral cancerous lesions?	Surgical removal	22 (31)
	Chemotherapy	13 (18)
	Radiotherapy	14 (19)
	Combination of all the above	23 (32)
	Total	72 (100)

30 (42%) oral surgeons, tobacco is the main etiology of oral cancer or precancerous lesions. Nonscrapable white lesions are the most common early manifestation of oral cancer as reported by 38 (52%) study participants. Tongue is the most common site of oral cancer according to 32 (43%) study participants, followed by floor of mouth. Most of the oral surgeons reported that biopsy is the main method of examination of malignant and premalignant oral lesions; 30 (42%) told that erythroplakia has most malignant potential. According to 36 (50%) study participants, medical therapy is the treatment of choice for management of precancerous lesions while for oral cancer, combination of radiotherapy surgical removal and chemotherapy was the treatment of choice.

Table 3: Attitude regarding the management of oral precancerous and cancerous lesions among oral surgeons

Attitude questions		*Number (%)*
Prognosis of oral precancerous lesions and oral cancer depends on early detection	Agree	66 (92)
	Disagree	6 (8)
	Total	72 (100)
My knowledge of management of oral cancer and precancerous lesions is current	Agree	38 (53)
	Disagree	34 (47)
	Total	72 (100)
I am adequately trained to manage patients with oral precancerous lesions and oral cancer	Agree	50 (69)
	Disagree	22 (31)
	Total	72 (100)
Oral cancer can only be managed by surgical treatment	Agree	12 (17)
	Disagree	60 (83)
	Total	72 (100)
Oral precancerous lesions occurring due to tobacco managed only by deaddiction	Agree	18 (25)
	Disagree	54 (75)
	Total	72 (100)
Patients with suspected oral cancer lesions should be referred to a cancer hospital	Agree	28 (39)
	Disagree	44 (61)
	Total	72 (100)

Table 3 shows that majority of study participants [66 (92%)] agreed with the statement that prognosis of oral precancerous lesions and oral cancer depends on early detection. Knowledge of 38 (53%) study participants regarding the management of oral cancer and precancerous lesions was current; 50 (69%) oral surgeons thought that they were adequately trained to manage patients with oral precancerous lesions and oral cancer; 60 (83%) study participants disagreed with the statement that oral cancer can only be management by surgical treatment and 54 (75%) oral surgeons disagreed with statement that oral precancerous lesions occur due to tobacco managed only by deaddiction. Patients with suspected oral cancer lesions should be referred to a cancer hospital, and 44 (61%) study participants disagreed with this statement.

Table 4 shows practices of study participants regarding the management of oral precancerous and cancerous lesions among oral surgeons; 52 (72%) oral surgeons do complete oral cavity examination; besides, palpating lymph nodes is practiced routinely on patients. Only 18 (25%) study participants regularly read journals, read books, and attend workshops to keep updated about current knowledge about management of oral cancer and precancerous lesions. About 57 (79%) oral surgeons always keep in mind all the factors affecting the prognosis of oral cancer and precancerous lesions before starting the management. Out of total, 52 (72%) study participants do not refer patients with frank oral cancer to a cancer hospital for better treatment and try to treat them on their own. Majority of study participants [41 (57%)] educate patient about adverse effects of alcohol and tobacco and assist them in cessation. More than half of the study

Table 4: Practices regarding the management of oral precancerous and cancerous lesions among oral surgeons

Practice questions		*Number (%)*
A complete oral cavity examination besides palpating lymph nodes is practiced routinely on patients.	Agree	52 (72)
	Disagree	20 (28)
	Total	72 (100)
I regularly read journals, books, and attend workshops to keep updated about current knowledge about management of oral cancer and precancerous lesions.	Agree	18 (25)
	Disagree	54 (75)
	Total	72 (100)
I always keep in mind all the factors affecting the prognosis of oral cancer and precancerous lesions before starting the management.	Agree	57 (79)
	Disagree	15 (21)
	Total	72 (100)
I refer patients with frank oral cancer to a cancer hospital for better treatment.	Agree	20 (28)
	Disagree	52 (72)
	Total	72 (100)
I educate patient about adverse effects of alcohol and tobacco and assists them in cessation.	Agree	41 (57)
	Disagree	31 (43)
	Total	72 (100)
I record all aspect of case history in detail of patients before coming to diagnosis.	Agree	35 (49)
	Disagree	37 (51)
	Total	72 (100)

participants do not record all aspects of case history in detail of patient before coming to diagnosis, and restrict to area affected.

DISCUSSION

The present study was one of its type as it is conducted among oral surgeons to explore knowledge of oral surgeons regarding management of oral cancer and oral precancerous lesions. In the present study, majority of study participants [50 (69%)] were more than 30 years of age. The same results were seen in study by Kumar and Suresan[18] and Jaber;[27] in both the studies, majority of study participants were more than 30 years of age. The reason for this is that the present study includes only oral surgeons and it takes about 8 years to complete BDS and MDS. In the present study, majority of study participants were males; the same results were shown in the study by Kumar and Suresan[18] and Jaber.[27] More than half of study participants in the present study had an experience less than 10 years in the present study. On the contrary, in the study by Kumar and Suresan,[18] most of the study participants had experience of more than 16 years.

In the present study, main etiological factor for oral cancer and precancerous lesions was tobacco, and same results were seen in the study by Kumar and Suresan[18] in which use of tobacco and alcohol was the main etiological factor for oral cancer and precancerous lesions. In the present study, most common early manifestation of oral cancer was nonscrapable white lesion, and the same results were seen in the study by Kumar and Suresan.[18] In the present study, the main site for oral cancer and precancerous lesions as reported by oral surgeons was tongue followed by floor of mouth. In the study conducted by Jaber,[27] most of the study participants answered that most common site of oral cancer was floor of mouth. According to the majority of study participants in the present study, erythroplakia has the most malignant potential, while in the study conducted by Jaber,[27] according to most of the study participants, leukoplakia has the most malignant potential.

In the present study, most of the study participants agreed with the statement that prognosis of oral precancerous lesions and oral cancer depends on early detection; the same results were shown in the study conducted by Kumar and Suresan.[18] More than half of the oral surgeons in the present study answered that their knowledge is current in regard to management of oral cancer and oral precancerous lesions, which is opposite to the results shown in the study conducted by Jaber[27] in which majority of study participants disagree with this statement; 50 (69%) study participants in the present study agreed with the statement that they are adequately trained to manage patients with oral precancerous lesions and oral cancer, which is the same in the study conducted by Kumar and Suresan.[18] In the present study, most of the study participants disagree with the statement that patients with suspected oral cancer lesions should be referred to a cancer hospital, which is opposite to the results shown in the study conducted by Kumar and Suresan,[18] in which majority of study participants agreed with the statement. This may be due to the reasons that former study was conducted among general dentists who might not have the experience to handle the cases.

About 72% of study participants in the present study do complete oral cavity examination besides palpating lymph nodes. In the study conducted by Kumar and Suresan,[18] only 37% of DPs practiced that. In the present study, half of the study participants educate patient about adverse effects of alcohol and tobacco and assist them in cessation, while in the study conducted by Kumar and Suresan[18] only 31% of study participants do that.

CONCLUSION

According to the above results, it has been concluded that oral surgeons had a good knowledge, positive attitude, and good practices regarding the management of oral cancer and oral precancerous lesions among oral surgeons. There is need for more multicentric studies to be conducted to explore the knowledge, attitude, and practice of the surgeons. As this is a cross-sectional study conducted only in one city, the results cannot be

generalized. Studies have to be conducted which show the factors affecting management of oral cancer and oral precancerous lesions.

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