

Knowledge about Oral Precancerous Lesions among Dentists in Hyderabad, Telangana, India.

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ABSTRACT

Background: Delay in diagnosis and inappropriate management of precancerous lesions results in oral cancer associated morbidity and mortality. **Aims and Objectives:** To evaluate the knowledge and perceptions of general dentists of Hyderabad, India. **Methods:** The study was carried out on randomly selected 120 private general dental practitioners in Hyderabad, India. Demographic details were recorded. Based on a questionnaire consisting of 10 questions, the knowledge levels of dentists about precancerous lesions of oral cavity cancer. **Results:** Out of 120 randomly selected dentists, 100 (83.33%) responded with completed questionnaires. Demographic details revealed that the mean age of participants was 30 years. For each answer a score of either zero or one was assigned. The average score of the study was 6.30 out of 10. Gender wise there was an insignificant difference between the knowledge levels. **Conclusion:** Most of the dentists were aware of precancerous lesions of oral cavity. Still there is a need for continuing dental education programs regarding these lesions and their malignant potentiality.

Keywords: Dentist, Knowledge, Malignant, Oral cancer, Precancerous.

INTRODUCTION

In daily routine practice, dentists often see white lesions in the oral cavity, even up to 24.8%.^[1] Among oral lesions, oral cancer is a major health problem in world with its high mortality rate and is seen mainly in developing countries like Indian subcontinent. The two step concept for development of cancer has been in practice since a long time, suggesting that cancer initially presents as a precancer precursor which subsequently transforms into a frank cancer.^[2] Hence, generally but not always oral cancer is preceded by premalignant lesions like leukoplakia, erythroplakia or premalignant conditions like lichen planus, oral submucous fibrosis. These terminologies now have been replaced with term potentially malignant disorders.^[3]

Early diagnosis is a foremost step for reducing cancer mortality. Hence, different studies were carried out to increase information and awareness among dentists about the challenge of oral cancer.

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Dental professional organizations can make constructive contributions towards achieving further improvements in professional involvement in prevention, early detection, and management of oral cancer and premalignant disease. There should be emphasis on regular clinical oral examination (screening) and providing guidelines for investigation (including biopsy).^[2,4-6]

Earlier studies evaluated the knowledge of dentists and dental students about oral cancer, there are few studies focusing on awareness and knowledge of precancerous lesions, especially in a developing countries like India. We carried this study to evaluate the knowledge and perceptions of general dentists of Hyderabad, India.

MATERIALS AND METHODS

A questionnaire based cross-sectional study was conducted in Hyderabad, Telangana, India, for a period of one year (January 2015 to December 2015) after obtaining approval from Institutional Ethics Committee. The study was carried out on 120 randomly selected dentists, out of which 100 (83.33%) responded with completed questionnaires. They were explained the purpose of study and prior written informed consent was obtained from all of them. They were informed about the confidentiality of the information

collected, so as to get more reliable answers from them. A self-administered questionnaire containing 10 questions relating to the knowledge of oral precancerous lesions was designed. For each answer a score of either zero or one was assigned. Based on a questionnaire consisting of 10 questions, the knowledge levels of dentists about precancerous lesions of oral cavity cancer.

Questionnaire

- What is the most common type of precancerous lesion?
 - A. Leukoplakia
 - B. Erythroplakia
 - C. Lichen planus
 - D. Oral Submucous fibrosis
- What is the most common etiologic agent?
 - A. Tobacco
 - B. Alcohol
 - C. Betel nut
 - D. Betel leaf
- Which among them will most likely transform into malignancy?
 - A. Leukoplakia
 - B. Erythroplakia
 - C. Lichen planus
 - D. Oral Submucous fibrosis
- What is the most common site of precancerous lesions?
 - A. Buccal mucosa
 - B. Tongue
 - C. Lips
 - D. Floor of the mouth
- Which type of leukoplakia has most malignant potential?
 - A. Homogeneous
 - B. Nodular
 - C. Proliferative
 - D. Hyperplastic
- Which type of lichen planus has most malignant potential?
 - A. Papular
 - B. Erosive
 - C. Bullous
 - D. Reticular
- Which gender is most prone to oral cancer?
 - A. Male
 - B. Female
 - C. No difference
 - D. Both equally
- Diagnostic method for definitive diagnosis?
 - A. Clinical examination
 - B. Radiographic examination
 - C. Histopathological examination
 - D. Cytological examination
- Which is the most common type of oral cancer?
 - A. Squamous cell carcinoma
 - B. Basal cell carcinoma
 - C. Malignant Melanoma
 - D. Verrucous carcinoma
- Which is the most common symptom of oral cancer?
 - A. Pain
 - B. Swelling
 - C. Itching
 - D. Dysphagia

Statistical Analysis:

The data obtained was tabulated and analyzed statistically for number and percentage using EPI-Info statistical software version 6. The statistical difference in awareness between the sexes were determined by using independent t-tests.

RESULTS

Out of 120 randomly selected dentists, 100 (83.33%) responded with completed

questionnaires. Demographic details revealed that the mean age of participants was 30 years. For each answer a score of either zero or one was assigned. The average score of the study was 6.30 out of 10. There were 63 male participants and 37 were female. The average age of male and female dentists respectively was 32.11 and 28.61 (Minimum 21 years and maximum 45 years old) [Figure 1].

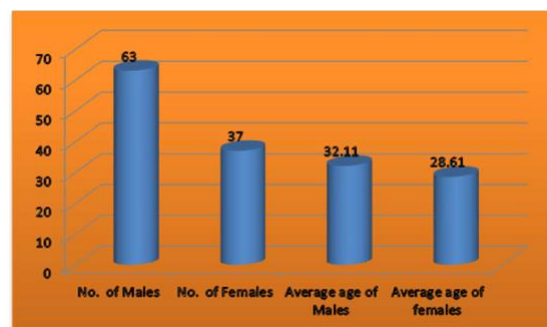


Figure 1: Demographic Profile of study participants

Table 1: Knowledge of Dentists about Oral Precancer

Sno	Question	Male (67)		Female (33)	
		Yes	No	Yes	No
1	What is the most common type of precancerous lesion?	51	16	21	12
2	What is the most common etiologic agent?	58	9	27	6
3	Which among them will most likely transform into malignancy?	39	28	18	15
4	What is the most common site of precancerous lesions?	52	15	22	11
5	Which type of leukoplakia has most malignant potential?	38	29	19	14
6	Which type of lichen planus has most malignant potential?	37	30	17	16
7	Which gender is most prone to oral cancer?	58	9	27	6
8	Diagnostic method for definitive diagnosis?	38	29	18	13
9	Which is the most common type of oral cancer?	62	5	29	4
10	Which is the most common symptom of oral cancer?	56	11	27	6

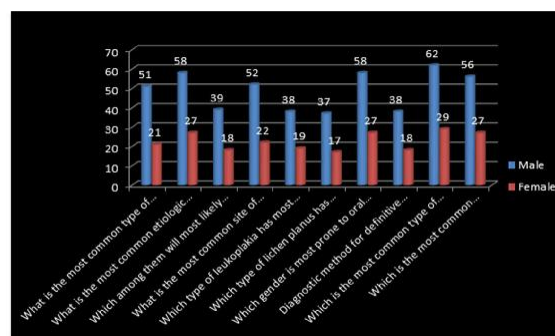


Figure 2: Knowledge of Dentists about Oral Precancer

Among male participants, the maximum score was 7 and the minimum score 4, for the female participants, the maximum and minimum score

were 6 and 3 respectively. The results showed that the mean score of 6.85 was for male participants and 6.10 for female participants. Even though the value of females' knowledge was 0.75 less than males. It was statistically insignificant.

The percentage of correct answers for each question in total, and for each group showed slightly better knowledge in males [Table 1 and Figure 2].

DISCUSSION

We found that the average score of the study was 6.30 out of 10. Gagendra et al (2006) study in New York dentists found an average score of 17.3 out of 29.10 Whereas Yellowitz et al (2000) in their study on American dentists regarding their knowledge level found an average score of 8.4 out of 14.^[11] Razavi et al (2013) carried a study in Iran and found that the mean score of the dentists knowledge was 5.41 out of 10.^[12]

When age was considered, with every one-year increase in age, knowledge was found to be reduced, which was statistically insignificant, similar to Hertrampf et al (2010),^[13] and in contrast to Borhan Mojabi et al (2012).^[14]

Our overall findings showed an average knowledge of dentists, similar to Leao et al (2005).^[15] In this study, almost 80% of participants were aware of the most common form of oral cancer. In a survey conducted by Greenwood and Lowry (2001),^[16] in England, awareness of the most common form of cancer was 90.6%, in the study by Canto et al,^[17] (2002) in Maryland, it was 80% and in a study by Mehdizadeh et al., (2014) in the north of Iran was 81.2%.^[18]

In our study the most correctly answered question was "which is the most common type of oral cancer", to which 62 males (92.53%) and 29 (87.87%) females answered correctly as oral squamous cell carcinoma. The least correctly answered question was the diagnostic method for definitive diagnosis?, to which 38 (56.71%) males and 18 (54.54%) females correctly answered as biopsy and histopathological examination. Similar study by Hassona et al (2015),^[6] reported that less than 25 % of dental students in Jordan knew about oral potentially malignant disorders (OPMDs) as risk factors for oral cancer. However our study reported 57 % of participants knew about the fact that oral precancerous lesions might turn to oral cancer. Other similar studies revealed a low knowledge about oral cancer. Clovis et al., (2002),^[19] 33.3%, and in Yellowitz et al., (2000),^[11] 32% of dentists had enough knowledge about oral cancer.

As dentists are often the first point of contact for patients to oral health care, their knowledge and awareness regarding this field is of vital importance, in order to shift emphasis to

prevention, and ultimately lowering incidence levels. This study shows that the practicing dentists have an average knowledge about oral precancerous lesions and their malignant transformation to oral cancer. Hence continuing dental education programs about oral precancerous lesions, the latest terminologies, diagnostic methods, malignant potential and treatment modalities are warranted. With day by day increase in the incidence of oral cancer, especially in developing countries like India there is a need to focus on the early detection, diagnosis and treatment of oral cancer and precancerous lesions.

CONCLUSION

Most of the dentists were aware of precancerous lesions of oral cavity. Still there is a need for continuing dental education programs regarding these lesions and their malignant potentiality.

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