



## KNOWLEDGE, ATTITUDE AND AWARENESS ABOUT ORAL CANCER AMONG DENTAL STUDENTS IN CHENNAI, TAMILNADU- A QUESTIONNAIRE STUDY.

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### ABSTRACT

**Aim and objectives;** To assess the knowledge, attitude and awareness about oral cancer among dental students in Chennai. **Materials and methods;** A cross-sectional questionnaire study was conducted among the undergraduate dental students between 3rd, 4th & those who are pursuing internship in Chennai, Tamilnadu. A questionnaire consisted of 15 questions regarding the knowledge, attitude and awareness towards oral cancer. The questionnaire was circulated among the dental students as Google forms through various social media modes and responses were noted and evaluated for statistical analysis by SPSS software version 24.0. Results; of all the 121, (57.03%) were intern students followed by (29.75%) final years and (13.22%) third years. About(70.2%) of the dental students were aware of the diagnostic tool for oral cancer and about (80.2%) were aware of oral squamous cell carcinoma as the most commonly occurring oral cancer. While (74.4%) agreed that there is a need for additional training or information regarding oral cancer. **Conclusion;** The current study implies that knowledge, especially about the causes, symptoms and best modes of treatment has to be reinforced throughout the undergraduate dental students so that it helps in better diagnosis and proper treatment.

**KEYWORDS :** Oral cancer, attitude, knowledge, awareness, dental students.

### INTRODUCTION:

Oral cancer is also known as mouth cancer, which might affect the mouth, tongue, lip and throat<sup>1</sup>. It belongs to a large group of cancer called "head and neck cancer"<sup>2</sup>. The risk factors of oral cancer are tobacco, alcohol and chronic trauma. Recent studies and researchers, after number of studies have concluded that human papilloma virus could be a risk factor for Oropharyngeal cancer<sup>3</sup> and prolonged sun exposure without proper protective measures could also cause lip cancer. Swelling/thickening, lumps or bumps with rough spots, crust, eroded areas with excessive bleeding in oral cavity are some of the symptoms of oral cancer<sup>4</sup>.

Most epidemiological studies have revealed that heavy smoking and alcohol intake are the most important risk factors for oral cancer<sup>5</sup>. Smokeless tobacco use, a common practice in Indian subcontinent, has also been shown to be a significant risk factor for oral and pharyngeal cancer. In order to reduce the morbidity and mortality rates, low treatment costs and to improve the quality of life early diagnosis of oral cancers is must. To achieve this, it is important that health professionals, especially dentists, perform oral cancer examinations as part of their clinical practice and should be especially aware of not only the pathogenesis of the diseases, but also the first clinical signs<sup>6,7</sup>

In some cases they begin with velvety white, red or speckled patches. In India around 77,000 new cases and 52,000 deaths are reported annually which is approximately 1/4th of global incidence<sup>8</sup>. Early stages of oral cancers are asymptomatic and about 60% of oral cancer cases are detected at their later stages (III & IV). Despite of today's therapeutic advances, this stage of cancer has very poor survival rates worldwide, average of 5 years survival rate of 50%.

### MATERIALS AND METHODS:

The questionnaire survey was conducted among 121 dental students (3rd, 4th and interns) in Chennai. Permission to conduct the study was obtained from concerned authorities of the institute. The survey was conducted by generating online Google forms and circulated through various social media platforms. The questionnaire comprised of 15 questions pertaining to knowledge, attitude, etiology and awareness on oral cancer. After agreeing to an informed consent form, the questionnaire was circulated, each participant was given a brief explanation on objectives behind this study before responding to the questionnaire, and information confidentiality was assured. Statistical analysis was performed using SPSS software version 24.0, to know the validity of the questions. Any question with p value < 0.05 was considered to be statistically significant.

### RESULTS:

Of all the 121 dental students enrolled for the study, (80.2%) of the dental students were aware that oral squamous cell carcinoma as the most common malignancy of oral cavity (figure-1). while (60.3%) of dental students were aware of, lateral border as the common site of carcinoma of tongue (figure-2). About (55.4%) were aware of common symptoms of oral cancer. It was observed that (38.0%) of dental students reported oral cancer is most commonly found during stage II, were as (32.2%) reported it as stage (III & IV). It was (46.3%) dental students reported surgery and radiotherapy as the best treatment mode during the late stages, (38.8%) reported it as surgery and chemotherapy (figure-3). Majority of dental students (77.7%) has less knowledge towards those viruses which are causing oral cancer. It was observed (54.5%) of dental students were aware of CK19 as the biomarker of oral squamous cell carcinoma. Majority of (70.2%) dental students

reported biopsy as the definitive diagnostic tool. About (47.1%) of the dental students were aware of submandibular and cervical lymph node most commonly involved lymphatic's during metastasis of carcinoma from oral cavity, Majority of them are unaware about metastasis of carcinoma from oral cavity(figure-4).(72.7%) of dental students were aware of lymphatic's as the route of metastasis of oral cancer. Majority of (79.3%) of dental student were aware that, 35-45 years as the most common age to get diagnosed with oral cancer (figure-5).While (81%) of the study group accepts that, the affected person should be given additional care and should be referred to a specialist. About (74.4%) of dental students agree that they require additional training on oral cancer and (66.6%) agree that early diagnosis could increase the survival rate by 5 years (figure-6).

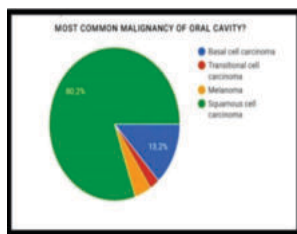


Figure 1.

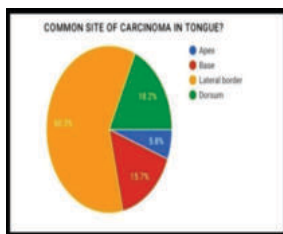


Figure-2

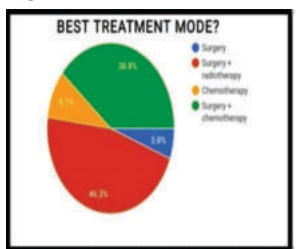


Figure 3.

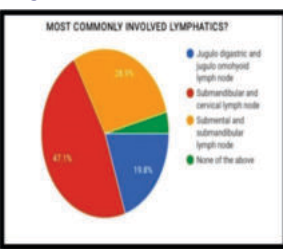


Figure-4

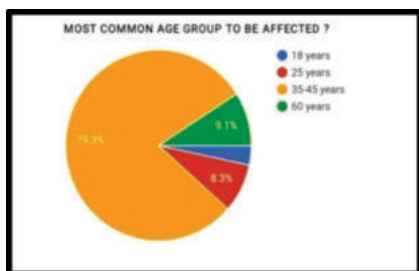


Figure-5

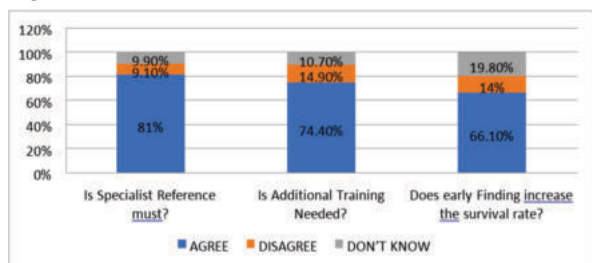


Figure-6

**DISCUSSION:**

Oral cancer is one of the most common cancer and it constitutes a major health problem particularly in developing countries.As a dentist, we have the chance to diagnose oral cancer even in asymptomatic patients before the spread occurs to adjacent tissues. So it is the responsibility of all the dental schools to make sure that every dental student must have sufficient knowledge on etiology, causes, different stages and the best modes of treatment, both theoretically and practically, which helps in better diagnosis of oral cancer at their early stages. This study was made on a limited group to

assess the knowledge, attitude and awareness about oral cancer among dental students in chennai,Tamilnadu.

In our present study majority of dental students(80.2%) were aware that oral squamous cell carcinoma is the most common type of cancer in the oral cavity,which was relatively higher than the other study conducted by Soares et al9.According to vijayendra Nayak et al,lateral border of tongue is the most common site for oral cancer, similarly in our study majority of dental student(60.3%)were aware of oral cancer most commonly occur at lateral border of tongue which was consistent with the study 10.79.3% of dental students were aware of oral cancerous lesions are most commonly diagnosed during 3rd and 4th decades of life, which was consistent with the study made by Naik Balachandra et al 11.

About 55.4% of dental students were aware that red and white spots are the early symptom of oral cancer which was in consistent with the study conducted by Kavitha muthu et al12.It was about (72.7%) of the dental students were aware that lymphatics is the major route of metastasis in oral cancer,which is consistent with the study made by Juliana Noguti et al 13,while (27.3%) of dental students are unaware of the metastatic spread.

(47.1%) of dental students were aware that submandibular and cervical lymphnodes are most commonly involved during metastasis of carcinoma from oral cavity,which was consistent with the study made by Juliana Noguti et al 13,it was about (52.9%) of dental students were unaware about most commonly involved lymphnodes during metastasis of carcinoma from oral cavity.

According to Chang Li Ting et al 14oral cancer is most commonly diagnosed during stage (III and IV), but in our study(38.0%) of dental students reported oral cancer most commonly diagnosed during Stage II and only (32.2%) reported oral cancer most commonly diagnosed during stage(III and IV), which is not consistent with the study. About(70.2%) of dental students were aware of biopsy is the definitive diagnostic tool for oral cancer,which is consistent with the study conducted by Ravi Mahrotra et al 15. (54.5%) of dental students were aware of CK19 is the biomarker seen in oral squamous cell carcinoma,which was consistent with the study conducted by Parvathy Rajeswari et al 16.

According to Joaquin et al 17 surgical management along with chemotherapy (or) radiotherapy as an adjuvant therapy and the best treatment mode during the late stages of cancer.In our study (46.3%) of dental students agreed it as surgery and radiotherapy and (38.8%) agreed it as surgery and chemotherapy which was consistent with the study. Majority of dental students(77.7%) were unaware about the viruses causing oral cancer and only (22.3%) of dental students correctly reported viruses causing oral cancer.(81.0%) of dental students agree that those with/suspected with oral cancerous lesion should be referred to a specialist. About(74.4%) of dental student agree that there is the need for additional training /information regarding oral cancer.(66.1%) agree that early detection of oral cancer improves the survival rate by 5 years.

**CONCLUSION:**

The current study shows overall knowledge about oral cancer among dental students was good but had only limited knowledge about the etiological factors,most commonly involved lymphnodes during metastasis of carcinoma from oral cavity. (81.0%) of dental students agree that those with/suspected with oral cancerous lesion should be referred to a specialist.Hence it is recommended that the knowledge of oral cancers on stages, various etiological factors should be reinforced throughout the undergraduate dental course. Multiple camps,case discussion events between different colleges has to be emphasized in the curriculum which will

enable the student in correct diagnosis and help in betterment of the patients lifestyle.

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