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# Alarming Lack of Awareness towards Oral Cancer

Dr. Seema Shantilal Pendharkar<sup>1</sup>, Dr. Rashmi V Gaikwad<sup>2</sup>

Associate Professor, Post-Graduate Student

Department of Oral and Maxillofacial Surgery, CSMSS Dental College and Hospital, Aurangabad, Maharashtra, India

## \*Corresponding Author:

Dr. Seema Shantilal Pendharkar

Associate Professor, Department of Oral and Maxillofacial Surgery, CSMSS Dental College and Hospital, Aurangabad, Maharashtra, India

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#### ABSTRACT

Oral cancer control is rapidly turning into a global health need. Oral cancer represents around six million deaths on the planet. It positions in the best three of all cancers in India, which records for about 30% of all cancers in the nation. The screening of patients for indications of oral precancerous and cancerous lesions has relied on the customary oral examination. An assortment of commercial diagnostic guides and methods are accessible these days to aid the screening of healthy patients for proof of generally shrouded cancerous change or to survey the capability of clinically anomalous mucosal lesions. This paper gives a rundown of the occurrence of oral cancer in India. It basically inspects the writing related with current oral cancer screening and case-discovering helps or assistants, for example, brush cytology, toluidine blue, tissue autofluorescence and chemiluminescence, such advancements improve identification of oral cancers abeyond traditional oral examination alone. Future research ought to be gone for improving nature of information for early discovery and prevention of oral cancer.

Keywords: Awareness, Oral Cancer, Prevention, Risk Factors, Tobacco

# **INTRODUCTION**

Cancer is the most well-known reason for morbidity in world. Practically around ten million new instances of cancer are accounted for every year worldwide and around six million passing every year worldwide is because of this ghastly ailment [1]. Oral Cancer is essentially characterized as a squamous cell carcinoma of oral cavity, lip and esopharynx. [2,3]. It is the 6th most normal malignancy in the world. Oral cancer accounts around 2 lakh demise worldwide every year and around forty six thousand passing in India [4]

Notwithstanding the various advancement and progressions in with respect to the treatment alternatives for oral cancer, patients experiencing oral cancer demonstrates poor prognosis. The reason can be ascribed to various primary tumors as a rule seen related with oral cancer, alongside this the malignant potential of oral cancer and the development degree of malady prompting early inclusion of encompassing structure more often than not add to poor prognosis [5]. Nearly at the season of conclusion upwards of 60% of patients experiencing oral cancer presents with stage three and stage four of the illness. This is as a rule because of the obliviousness of beginning oral lesions by patient or missed determination by dentist presumably because of unawareness about the asymptomatic lesions which has the malignant potential.[6]

Oral cancer is seen all the more regularly in creating countries when contrasted with the created ones, this is because of the evolving ways of life. Around seventy five percent of oral cancer cases are because of the destructive propensities. Likewise the long standing premalignant lesions, absence of awareness about the hazard variables related with oral cancer and its postponed introduction prompts undesired consequences [7,8]. Utilization of tobacco in any structure can be destructive, in creating nation, for example, India utilization of smokeless tobacco which is normally named as gutkha biting shows with

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# higher hazard and rate of oral cancer and all the more regularly influencing youths. A report says, it is assessed that 43% of death because of oral cancer was a direct result of tobacco use, liquor utilization and undesirable way of life [9,10,11].

Primary way to deal with this hazardous sickness is to make awareness on oral cancer in populace. Oral cancer is preventable , just if the related hazard variables are dodged. The worldwide and the national guidelines weight on the significance of early identification of tumor. The expanding morbidity rate is disturbing and its postponed introduction connotes the significance and dire requirement for broad awareness oral cancer programs which should weight on the avoidance, and about the early signs and side effects prompting early identification and analysis and in this manner its timely manaegemnt. [12].

Approach can be moreover made to improve the limit and adequacy of dental star in recognizing the lesion at their incipient stage also with the help of progressively made characteristic gadgets so as to stop their malignant transformation. This article expects to survey the accessible writing so as to assess the level of individuals influenced with oral disease in creating nation like India, its etiology , indicative guides for early recognition of and its counteractive action. It intends to make the lacking mindfulness in individuals with respect to this threat

## Oral cancer in India: A burden.

In India Oral cancer is of noteworthy wellbeing significance as it positions among the best three sorts of cancers. It represents around 30% all things considered, with high morbidity rate because recently diagnosis and the significant expense of treatment which the patients can't manage. It for the most part influences the low socio-economic gathering of individuals more due to the higher exposure to the hazard elements related with oral cancers 13, 141, 15.

Oral cancer in India has been perceived as a "grave problem" as named by the Public wellbeing authorities, Academic restorative focuses and Private emergency clinics. Henceforth, the strategies for expanding the awareness and expanding the learning on its hazard components are picking up energy as of late. Inpite of every one of these endeavors oral cancer still remains the significant reason for death in India. 16,17

#### Etiological factors:

Risk elements related with oral cancer include: Smoking, Tobacco in any structure, Alcohol, HPV contamination and so on.

Utilization of tobacco (smoking/chewing) and alcohol are the major causative components of oral cancer. As indicated by Mehta et al, the relapse rate of leukoplakia is high with the individuals who diminished the utilization of tobacco18. Likewise in an article, Gupta et al demonstrated the relationship between decreased risk of oral cancer after cessation of tobacco19. Jayalekshmi et al demonstrated a relationship between occurrence of oral cancer and every day recurrence of tobacco chewing (p<0.001) 20.

Huge relationship between advancement of oral cancer amd alcohol admission in kerela (India) guys (among the past and current consumers) was accounted for by Cancella et al. it demonstrated an expanded risk proportion of 90% among past consumers and around forty nine percent among current consumers 21.

**Diagnostic aids for detection of oral cancer:** Diagnostic aids and techniques should be focused on detecting

Oral cancer at initial stage, various diagnostic aids are present to diagnose cancerous and precancerous lesions.

Screening: It is characterized as uses of diagnostic test to individuals who are clearly free from disease in order to deal with the individuals who most likely experience the ill effects of disease from the individuals who presumably don't. Screening checks the nearness of disease in an indication free individual, as for instance Pap test is directed as national screening system to distinguish cervical cancer. Correspondingly mammography for location of bosom cancer is directed as screening program. Criteria are basic for screening programs in order to maintain a strategic distance from the false positive outcomes and to decide the propriety of the led test. Twenty two screening criterias has been recorded by national screening board in United Kingdom which ought to be followed as given by Junger and Wilson22,23. Besides various significant inquiries ought to be considered for a specific screening test.Also a decent screening test ought to be 

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protected, basic and worthy to open. It ought to identify the disease in beginning period and ideally those lesions which has malignant potential24. They ought to have low false negative qualities and should have high positive prescient esteem.

Current Oral Cancer Screening test include:-

- i. Examination: Conventional Oral oral examination under typical incandescent light, has been the standard technique for oral cancer screening since long. Greater part of oral lesions are analyzed accidently on examination. clinical oral On oral examination the great clinical introduction of premalignant lesion and oral danger can be seen, for example, a : a white patch, red patch or persistent ulcer that can't be analyzed as other condition. some Albeit Oral examination might be compelling screening test for oral cancer, however there are as yet numerous problems with this methodology. As around 5-15% of the all inclusive community presents with oral mucosal irregularities 35-37 and out of which most lesions are white patches known as leukoplakia, yet ,anyway just a little level of leukoplakias advance and become malignant. Conventional Oral Examination can't separate between these progressive and non progressive lesions. It is beyond the realm of imagination to expect to recognize all possibly premalignant lesions, and their likeliness to advance to cancer25,26,27.
- Brush Cytology: Brush Biopsy, a potential ii. gadget for oral cancer case-finding. It was presented in 1999. The utilization of oral brush cytology for assessment of oral precancerous lesions is bolstered by numerous examinations, the outcomes were empowering. Scuibba et al in an investigation decided the explicitness and affectability of oral brush biopsy28. Utilized OralCDx for the recognition of pre-cancerous and cancerous lesions of the oral mucosa. They presumed that promising outcomes in diagnosing cancerous lesion were gotten with oral brush biopsy method. This methods demonstrates to be gainful in a patient who presents with in excess of five lesions, such patients would not be prepared to agree to various scalpel

biopsies, likewise in the patient with different lesions all through their oral depression, additionally brush cytology demonstrates to be advantageous in the non-consistent patient who is probably not going to return for a follow-up exam29,30.

iii. Toludine Blue Test: Toluidine blue or tolonium chloride is a vital dye. It stains nucleic acids and abnormal tissues. Toluidine blue has been utilized for a considerable length of time to help the recognizable proof of mucosal anomalies of the oral cavity31. Specialists esteem it as a helpful method to outline the degree of a lesion before extraction. A study32 propose that lone dim regal blue recoloring ought to be considered as positive for threat. All carcinomas recolor dull illustrious blue and shows nuclear recoloring histologically. Benign lesions does not demonstrate nuclear recoloring and regularly seem light blue in shading. These findings are useful to clinicians however the outcomes got ought to be affirmed.

## iv. Light based detection:

## Chemiluminescence (reflective tissue fluorescence):

Chemiluminescence has been utilized as an assistant in the examination of the cervical mucosa since numerous years for "acetowhite" premalignant and malignant lesions. As of late, this light based recognition innovation has been embraced for its utilization in the oral cavity. It is at present the names MicroLux DL and showcased under ViziLite Plus. These items are made with a goal to aid in and improve the recognizable proof of oral mucosal variations from the norm. For this the patient should initially rinse with a 1% acetic acid arrangement which ought to be followed by direct visual oral cavity examination utilizing a blue-white light source33,34.

# VELscope (restricted discharge tissue fluorescence):

Since ages, it was seen that the tissue fluorescence can be conceivably utilized for recognition of cancer . with this idea there has been significant enthusiasm for the innovation of fluorescence imaging for cancer screening in oral cavity 35,36,37. In Fluorescence spectroscopy tissues are presented to different excitation wavelengths, for example, to recognize the

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distinction among ordinary and strange tissues. While, fluorescence imaging includes the autofluorescence of cell fluorophores after exposure of tissue to a particular wavelength of light. The phone adjustments changes the convergences of fluorophores, which influence the ingestion and dispersing of light in the tissue, bringing about changes in the shade of tissues that can be watched visually38.

- 1) Prevention and Control of Oral Cancer: Oral cancer is preventable. Understanding the reason would help in avoiding it. Usage of multisectorial, powerful, coordinated strategies for oral cancer will diminish the frequency of oral cancer39,40. For this reason different associations are cooperating so as to make awareness on the disturbing rate of oral cancer.
  - a) World Health Organisation (WHO) platform for Prevention of Oral Cancer:

The 58th, World Health Assembly Resolution was centered on cancer control and prevention. It was hung on May 25, 2005 (WHA5822). It encourages the part states to join with WHO in strengthening cancer control program. This program pointed on prevention, diagnosis, early detection, treatment, palliative consideration and rehabilitation. It additionally centered around assessing the effect of executing such programs. This program likewise energizes the explores essential in order to build awareness on oral cancer.

Viable support is fundamental at local, national and global dimensions. WHO, for this reason has reinforced its connections. Its system contains offices of United Nation framework, International Organizations, government and non-government associations and so on 41,42,43.

## WHO Global Health Action Program:

World Health Organization oral health program works for the prevention of oral cancer, trade of between nation health data and encounters from an incorporated methodologies as far as health advancement, prevention and the executives of oral cancer 44. Likewise means to create global reconnaissance framework for oral cancer and its risk factors. They sponser international gatherings with the point of oral cancer prevention and screening, risk variables, treatment and care of patients. With same center, tenth International Congress was held in Greece in April 2005. It was composed by the relationship for Hellenic cancer society, International congress on oral cancer, Hellenic relationship for treatment of maxillofacial cancer and co-sponsored by WHO.

**Oral Health and the World Health Assembly 2007:** World Health Assembly passed a resolution on Oral Health. In light of the world health assembly 60 resolution (2007) an accentuation was given on the requirement for surrounding strategies and arrangements on oral cancer control and prevention and oral health awareness 45,46.

# **Future Challenges Of Defining Oral Cancer:**

Despite the fact that oral cancer can be prevented, controlled and treated, there exist a significant gap between research, technology and Indian public's knowledge and awareness regarding this. Efforts must be made on the part of government and non government organizations to bridge this gap. Greatest threat of Oral Cancer burden exist among lower socioeconomic strata as they have limited access to education and knowledge on this. This should be addressed and prevention through action against risk factors like tobacco can help decreading burden.  $_{47,48,49,50}^{47,48,49,50}$ 

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