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Awareness program on knowledge of oral cancer

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Abstract
Oral cancer among the workers is of prime importance in this era. The Global Burden of Disease Study 2017 estimated that oral diseases affect 3.5 billion people worldwide. Cancers of the lip and oral cavity are among the top 15 most common cancers worldwide, with nearly 180 000 deaths each year.In India, 20 per 100000 population are affected by oral cancer which accounts for about 30% of all types of cancer. The study conducted a research among 80 construction site workers in Gorakhpur. The findings are workers pre-test percentage of Attitude in each aspect on oral cancer before administration of structured teaching programme. In positive statements with a mean score of 60.22 and SD = 7.51 and mean percentage 70.85%. In negative statements with a mean score of 10.72, SD = 2.31 and mean percentage 71.47%. Workers were having average Attitude on both aspects. Workers post-test percentage of Attitude in each aspects of oral cancer after administration of awareness programme. In positive statements with a mean score of 71.75, SD 4.46 and mean percentage 84.41%. In negative statements with a mean score of 12.63 and mean percentage of 84.20% and SD 2.03. In an overall mean score of 84.38, SD 5.37 and mean percentage 84.38%. They are having adequate favorable Attitude on both aspects.

Keywords: Access knowledge Attitude of workers towards oral cancer

Introduction

Oral cancer includes cancers of the mouth and the back of the throat. Oral cancers develop on the tongue, the tissue lining the mouth and gums, under the tongue, at the base of the tongue, and the area of the throat at the back of the mouth. Oral cancer accounts for roughly three percent of all cancers diagnosed annually in the United States, or about 53,000 new cases each year. Oral cancer most often occurs in people over the age of 40 and affects more than twice as many men as women. Most oral cancers are related to tobacco use, alcohol use (or both), or infection by the human papilloma virus.

In India, around 77,000 new cases and 52,000 deaths are reported annually, which is approximately one-fourth of global incidences. The increasing cases of oral cancer are the most important concern for community health as it is one of the common types of cancers in India.

Etiology and Major risk factor

Numerous risk factors or possible causative agents for OC have been described. Chemical factors like tobacco and alcohol, biological factors like human papillomavirus (HPV), syphilis, oro-dental factors, dietary deficiencies, chronic candidiasis and viruses have been shown to be significantly associated with Oral Cancer.

Molecular pathogenesis of oral cancer

Oral carcinogenesis like any other cancer is a progressive disease and normal epithelium passes through stages starting from dysplasia to finally transforming into invasive phenotypes. Although all types of carcinomas are seen in oral cavity, the most common form of oral cancer is squamous cell carcinoma. Use of genetic and proteomic approach in recent years have revealed the molecular pathological picture of oral cancer. There is active search to identify genetic alterations in on cogenesis or tumour suppressor genes, role of genomic instability and epigenetic modifications and to generate a gene expression profile in oral on cogenesis. Understanding these genetic changes and gene expression patterns are keys to the understanding of molecular pathogenesis of oral cancer. Though, there are some significant leads achieved, the complete understanding of molecular pathology of oral cancer and its association with causative agent will require another decade of intensive research.

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We have discussed some of the important updates in this area of active research.

Oral cancer: Risk factors and prevention
The major causes of oral cancer worldwide remain tobacco in its many different forms, heavy consumption of alcohol, and, increasingly, infection with certain types of HPV. Although the relative contribution of risk factors varies from population to population, oral cancer is predominantly a disease of poor people. Prevention of this devastating disease can come from fundamental changes in socioeconomic status, as well as from actions to reduce the demand, production, marketing, and use of tobacco products and alcohol. A healthy diet, good oral and sexual hygiene, and awareness of the signs and symptoms of disease are important. Success depends on political will, inter-sectoral action, and culturally sensitive public health messages disseminated through educational campaigns and mass media initiatives.

Cancer screening: Accuracy, efficacy, and potential harms
Although an affordable, acceptable, easy to use, accurate, and effective screening test for oral cancer is available in high-risk countries, a decision to introduce population-based screening should take into account the level of health service development and available resources to meet the increased treatment demand that screening generates. The target population for oral cancer screening consists of those age 30 years and older who use tobacco and/or alcohol.

Visual screening of the oral cavity has been widely evaluated for its feasibility, safety, acceptability, accuracy to detect oral precancerous lesions and cancer, and efficacy and cost-effectiveness in reducing oral cancer mortality. Visual screening involves systematic visual and physical examination of the intraoral mucosa under bright light for signs of oral potentially malignant disorders (OPMDs), as well as early oral cancer, followed by careful inspection and digital palpation of the neck for any enlarged lymph nodes. It is a provider-dependent, subjective test; accordingly, its performance in detecting lesions varies among providers. Comprehensive knowledge of the oral anatomy, the natural history of oral carcinogenesis, and the clinical-pathological features of the OPMDs and preclinical cancers are important prerequisites for efficient providers of oral visual screening.

The potential harms of oral visual screening may include additional diagnostic investigations, such as incision or excision biopsy; anxiety associated with false-positive screening tests; detection and treatment of biologically insignificant conditions that may have no impact on oral cancer incidence; and false reassurance from false-negative tests.

Visual screening by health care personnel
A variety of health care personnel—including dentists, general practitioners, oncologists, surgeons, nurses, and auxiliary health workers—may provide oral visual screening after training. Sensitivity ranges from 40 percent to 93 percent, and specificity ranges from 50 percent to 99 percent for detecting precancerous lesions and early asymptomatic oral cancers

Self-Examination and Other screening methods
Although mouth self-examination using a mirror has been evaluated as a screening test in some studies, whether it could lead to reductions in oral cancer mortality is not known. There is insufficient evidence to recommend the routine use of other oral screening tests, tissue fluorescence imaging, tissue fluorescent spectroscopy, and salivary analysis and cytology for primary screening of oral cancer.

Oral cancer: Early clinical diagnosis and staging
Primary care dental and general practitioners should play a major role in referring patients to cancer treatment facilities for early diagnosis and treatment. Improving the skills of these primary care doctors is essential to improving prospects for early diagnosis, particularly among patients who use tobacco or alcohol in any form. Routine biopsy in those clinically presenting with features of precancerous lesions may lead to early diagnosis of underlying invasive oral cancer. In addition to history, physical examination, and biopsy, a simultaneous assessment of the upper aero-digestive tract is necessary because patients with oral cancer have a high risk of cancers developing in other head and neck sites and in the lungs.

Oral cancer: Management
Oral cancer is predominantly a loco-regional disease that tends to infiltrate adjacent bone and soft tissues and spreads to the regional lymph nodes in the neck. Distant metastasis is uncommon at the time of diagnosis. A thorough inspection and palpation of the oral cavity and examination of the neck is mandatory. CT and MRI imaging are widely used to assess the extent of involvement of adjacent structures, such as bones and soft tissues. Surgery and radiotherapy are the main treatment modalities. Given the skills, expertise, and infrastructure required for staging and treatment with minimal physical, functional, and cosmetic morbidity, oral cancer treatment is usually provided in specialized cancer hospitals, such as comprehensive cancer centre, or in hospitals at the highest level of health services, third-level centre.

Conclusion
A multifaceted approach that integrates health education, tobacco and alcohol control, early detection, and early treatment is needed to reduce the burden of this eminently preventable cancer. How to accomplish this is known; astonishingly, it has not been applied in most countries, and not at all in the high-burden countries. Improving awareness among the general public and primary care practitioners, investing in health services to provide screening and early diagnosis services for tobacco and alcohol users, and providing adequate treatment for those diagnosed with invasive cancer are critically important oral cancer control measures. Imaging, histopathology, cancer surgery and radiotherapy infrastructure and services, trained professionals, and the availability of chemotherapeutic agents are inadequate in many LMICs, seriously compromising early detection and optimum treatment. As this chapter has demonstrated, however, these interventions are affordable and cost-effective.

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