

Epidemiological factors of oral cancer health and social care essay



Abstract: Introduction: Tobacco chewing, smoking and alcohol consumption are major contributing factor for oral carcinoma. India has world's highest numbers of oral cancers (almost 20%) and likely 1% of the Indian population having oral premalignant lesions. Aim: The purpose of the study was to evaluate the epidemiological factors and clinical profile of oral cancer cases. Settings: Department of Surgical Oncology, King George's Medical University, Lucknow, India. Study design: Cross-sectional study. Method: A retrospective study of 479 cases, from May 2010 to December 2012, with histopathologically confirmed oral carcinoma was carried out. Subjects' details of age, sex, occupation, tobacco consumption, site of carcinoma and stages at presentation were recorded. Results: The male: female ratio was 3.1: 1 with a mean age of 47.84 years. Buccal mucosa and alveolus was the most affected site. Majority of cases were from socially and economically weaker section. 93.72% cases were tobacco consumers. Stage IVA was the predominant stage at presentation followed by Stage III. Conclusion: The finding of study reveals that tobacco consumption is one of the major contributors in development of cancer of oral cavity. Delay in presentation of disease increases the burden of diseases and worsens the prognosis. Key words: Oral cancer, oral cancer epidemiology, buccal mucosa.

Introduction: In India, tobacco consumption is socially and culturally well accepted in almost every level of society. Traditional smokeless forms like betel quid, tobacco with lime are commonly used and areca nut blends products such as gutkha and pan masala are ever-increasing not only among men but also among women, teenagers and children especially in lower socioeconomic section. Tobacco chewing, smoking and alcohol consumption are major contributing factor for oral carcinoma. A small percentage of oral cancer

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cases are seen who do not use tobacco. Several studies from all over world demonstrate smoking and smokeless tobacco products as aetiological factor for oral cancer. [1] Alcohol consumption increases this risk. [2] India has world's highest numbers of oral cancers (almost 20%) and likely 1% of the Indian population having oral premalignant lesions. [3] Human papilloma Virus, [4, 5] dietary deficiencies [6, 7] and poor oral hygiene [8] have also been associated with increased risk. The purpose of this retrospective study was to study the epidemiological factors and clinical profile of oral cancer cases in North India. Material and Method: A retrospective study of 479 cases, from May 2010 to December 2012, with histopathologically confirmed oral carcinoma was carried out in Department of Surgical Oncology, King George's Medical University, Lucknow, India. Subject's details of age, sex, occupation, oral habit and clinical stages at presentation were recorded. Those patients, whose full information was not available, were excluded from the study. Cases were classified according to the TNM classification of the American Joint Committee for Cancer (7th edition) staging of carcinoma of oral cavity. [9] Statistical analysis included calculation of percentages and proportions.

Results:

There were four hundred seventy nine oral cancer cases recorded from May 2010 to December 2012. Three hundred sixty four were males (75.99%) and one hundred fifteen were females (24%) [Table1]. The male: female ratio 3.1: 1 with mean age of 47.84 years. The age distribution of oral cancer cases is shown in Table 2. The largest numbers of cases in the study 124 (25.88%) were recorded in age group 51-60 years followed by age group 41-50 (24.

84%). The youngest patient was 20 years old and the oldest was 80 years. The least number of cases were seen in the age of 70 years and above. The employment data reveals that majority of the cases 351 (73.27%) were involved in blue collar jobs followed by unemployed. The least number of cases were seen in professionals who comprised of only 5 patients (1.04%). The occupation distribution is shown in Table 3. Thirty (6.26%) patients never consumed any products of tobacco. The majority of cases 254 (53.04%) were tobacco chewers followed by the group of those who were both smokers and tobacco chewers which represents 156 (32.56%) cases. Thirty nine (8.14%) cases were only smokers [Table 4]. The duration of habit is listed in Table 5. 153 (31.94%) patients had a history of tobacco consumption for an average duration of 21-40 years, followed by group of 11-20 years (28.39%). About 10 patients (2.08%) were in the group of greater than 41 years of tobacco use, while eighteen cases (3.75%) occasionally consumed tobacco. Buccal mucosa and alveolus was the most affected site with 183(38.20%) and 154 (32.15) patients respectively. Tongue cancer was third major site of neoplasm presented in 88 patients (18.37). Some cases of gingivo buccal sulcus, Palate, Floor of Mouth, Maxilla and retromolar trigone were also reported. [Table-6]265 patients (55.32%) presented at Stage IVA followed by 135 patients (28.18%) at Stage III. 39 (8.14%) cases presented at Stage IVB, 24 cases (5.01%) at Stage II, 13 (2.71%) cases at Stage I and 3 cases presented at Stage IVC (0.62%). [Table 7]. Discussion: The present study showed that majority of oral cancer cases 93.73% were tobacco consumers before being diagnosed with oral carcinoma. Such association of tobacco and development of oral cancer are reported in several studies. [1] Male to female ratio was 3.1:1 in this study <https://assignbuster.com/epidemiological-factors-of-oral-cancer-health-and-social-care-essay/>

while some other studies conducted in other part of India also found higher male to female distribution. [10, 11, 12] Social and cultural environment favor males due to easy access of the tobacco products than females; however, this is slowly losing ground. In this study, the youngest patient was 20 years old and the oldest was 80 years of age. The most affected age group was 51-60 year followed by 41-50 years which is consistent with other studies of India. [10, 11, 12]. Tobacco use occurs in all strata of society, such as illiterate to professional, adolescent to adults, poor to rich etc; however gender, occupation and education influences tobacco use. [13] The majority of patients were from socially and economically weaker section (labours and farmers) which is more prone to consume tobacco because of lower education level and lack of awareness about consequences of tobacco consumption. Duration of tobacco consumption as shown in table 5 demonstrates that most of the cases were seen in group of 21-40 years followed by 11-20 years. Smokeless tobacco [14] and tobacco smoke [15] contains multiple carcinogens and increased exposure enhances the risk to the development of carcinoma. The toxicity of tobacco is enhanced in patients who smoke simultaneously. The cancer of tongue and floor of mouth is more common site in Western countries while in Indian subcontinent the buccal mucosa and gingival are often affected due to placement of tobacco quid such as khaini, gutkha , betel quid etc; in oral cavity.[1] Buccal mucosa and alveolus was the most affected site in present study. Other epidemiological studies also found similar outcomes. [10, 12] Late diagnosis of carcinoma is a major problem of developing countries especially in India which severely affects the treatment outcomes. [16] Early detection reduces the burden of disease, morbidity and mortality. [17] We observed the same

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in the present study as most of the cases were at Stage IVA (56%) followed by Stage III (27%). The least number of cases were at Stage IVB (7%), Stage (II 5%), Stage I (2%) and Stage IVC (0.62%). Conclusion: Tobacco consumption is the main etiological factor for development of carcinoma of oral cavity in present study. Majority of cases reported at advanced state of diseases which increases the burden of disease and worsen the prognosis. Smokeless tobacco consumed in India is one of the commonest forms of tobacco abuse and is the leading cause of cancer in India especially of the buccal mucosa and alveolus. There is need to spread awareness about lifestyle attributed disease and immediate consultation on suspicion of cancer. Acknowledgements: Mahendra Pratap Singh is grateful to CSIR, New Delhi for providing fellowship to peruse PhD.