

ORIGINAL ARTICLE

Retrospective Study on Risk Habits among Oral Cancer Patients in Gwalior, Madhya Pradesh

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ABSTRACT

Background: Retrospective studies on oral cancer patient profiles related to risk habits could provide etiologic clues for prevention in specific geographic areas.

Objective: The objective of this study was to study the risk habit characteristics of oral cancer patients.

Methods: A cross-sectional retrospective case record study of oral cancer patients who reported during 2016–2017 to Maharana Pratap College of Dentistry and Research Centre, Gwalior, Madhya Pradesh, India. Data on sociodemography, histopathology, site of cancer, and risk habit profiles of the patients were recorded in a pre-designed per forma by one calibrated examiner with internal validity checks.

Results: The 239 oral cancer patients constituted the study. Risk habituates were highest in patients with oral cancer.

Conclusion: The prevalence of oral cancer was higher among males predominantly with risk habits of betel quid/tobacco chewing and smoking.

Keywords: Betel Quid, Oral cancer, Retrospective study, Risk habits, Tobacco.

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INTRODUCTION

The sixth most common cancer worldwide is oral cancer and shows marked geographic variation in occurrence.^[1] Oral cancer is of paramount importance to dental professionals and constitutes a major public health problem in India as common cancer site observed by Indian cancer registries (ICMR, 1992). Epidemiological studies have shown that incidence of oral cancer varies significantly in different continents, and also between developed and developing countries, high incidence rates were reported in Asian region. The disproportionately higher prevalence of oral cancer in India as one of the five leading cancers in either sex is related to the use of tobacco in various forms, consumption of alcohol, and low socio-economic condition related to poor hygiene, poor diet, or infections of viral origin.^[2,3] The most widespread form of tobacco is chewing of betel quid with tobacco, and this has been demonstrated as a major risk factor for cancer of oral cavity.^[4] Betel quid with or without tobacco is one of the independent major risk factors for oral cancer.^[5] In countries, where such habits were prevalent and had cultural importance in traditional and religious ceremonies, oral cancer was one of the most common cancers.^[6] Apart from tobacco use, ill-fitting dentures, poor oral hygiene, syphilis, inadequate diet, malnutrition, and chronic irritation from rough or broken teeth were reported more frequently in oral cancer patients.^[7] The study of geographic variations of cancer risk in India with a huge population of diverse cultures, habits, and dietary practices ought to be particularly fruitful in generating etiological hypotheses that could open the doors for investigation of one or more cancers. Thus, descriptive oral cancer data for each specific geographic area are important for many reasons including understanding the extent of the problem, determining which groups within the population are at highest and lowest risk, and relating the burden of oral cancer to that of other cancers to evaluate the allocation of resources for research, prevention, treatment, and support services. Despite the limitation of institutional records as source of cancer morbidity compared to population-based epidemiological study, an effort was made to study risk habits among oral cancer patients reported during 2016–2017

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Table 1: Risk habits among oral cancer patients

With risk habits	Male	Female
	167	72
Chewing		
Betel quid	30%	29%
Betel quid+tobacco	60%	61%
Gutkha/khaini/pan masala	10%	10%
Alternative	-	-
Smoking		
Beedi	67%	12%
Cigarette	22%	0
Snuff dipping	15%	0
Alcohol	79%	17%
Multiple risk habits	3%	0
None of the risk habits	0	17%

to Maharana Pratap College of Dentistry and Research Centre, Gwalior, Madhya Pradesh, India.

METHODS

An observational cross-sectional retrospective study of 239 case records of oral cancer patients registered during 2016–2017 to Maharana Pratap College of Dentistry and Research Centre, Gwalior, Madhya Pradesh, India. The study was conducted over a period of 12 months (from May 2016 to May 2017) by one calibrated investigator under internal validity checks. Case records of patients with histopathological confirmatory diagnosis of primary malignant neoplasm of the oral cavity were included in the study. Secondary data collection per forma^[8] was designed to include the following: (1) Sociodemographic characteristics of patients at the time of diagnosis; (2) reported risk habits/frequency/duration, (a) chewing habit: Betel quid alone; betel quid + tobacco, alternative chewing mixtures (gutkha, khaini, and pan masala), (b) tobacco smoking: Beedi and cigarette, (c) snuff, and (d) alcohol; and (3) site of cancer occurrence was recorded according to the WHO International Classification of Diseases, 9th version under the Rubrics 140–145 (WHO, 1978).

RESULTS

There were 239 oral cancer patients included in the study. The mean age of all patients was 37 years. The male:female ratio for oral cancer was 2:1. Histological types of oral cancer included 94% squamous cell carcinoma, 4% verrucous carcinoma, and 2% of other types. The risk habit distribution is shown in Table 1.

DISCUSSION

Oral cancer for the developing world is certainly of great significance; oral cancer patients accounted for 11% of

total cancer patients reported during 10 years is comparable to study in India.^[1] Despite the methodological limitations, this retrospective study is first to report on risk habits among oral cancer patients reported to Gwalior and supports many studies that showed chewing of betel quid alone/with tobacco and smoking as important risk habits for oral cancer. This baseline data provide a prospect of averting oral cancer by risk habit control and valuable springboard for future hospital/population-based prospective epidemiological studies. Among oral cancer patients, 17% without risk habits considered in the study, role of dietary factors, poor oral hygiene, poor dental status, denture irritation, genetic predisposition, oncogenic viruses (human papillomavirus), occupation, exposure to sunlight, hormones (estrogens), and sexual practices cannot be neglected and directs further studies to establish their role in oral cancer causation.

CONCLUSION

This study implicates seriousness of the need to implement and sustain appropriate oral cancer preventive measures including health education to the public emphasizing on early symptoms, risk habits particularly tobacco chewing/smoking, self-examination instructions, regular visits to the dentist, and oral cancer screening programs for the community.

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