

ORIGINAL RESEARCH

Distributive pattern of oral cavity carcinomas in a tertiary care hospital in Central India

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ABSTRACT:**Aim**

This study was performed to analyze the distributive pattern of oral cavity cancers in a tertiary care hospital in the region of Madhya Pradesh region of central India.

Background

Oral cavity cancers present in various sub sites and with varied clinico demographic factors. It is very pertinent to study these factors to classify and manage these cancers appropriately.

Materials and Methods

This study included the retrospective data from a tertiary care institute and included all the cases of oral cavity cancers that got registered from January 2021 to December 2022. A total of 592 cases with oral cavity cancer were included in our study. The parameters studied were age, sex and the site of lesion in oral cavity. Data collected was analyzed accordingly based on different parameters.

Results

This study comprised of 592 cases with oral cavity carcinoma in total. The age group affected the most was the 26-50 year age group. Compared to females, males were more commonly affected with the male:female ratio being 3.6:1. The most common site of the oral cavity cancer was the buccal mucosa, with the tongue being the second most common site.

Conclusion

Oral cavity cancers are most commonly found in the males and most commonly affect the 26 -50 years age group. The commonest site of the oral cavity cancer is buccal mucosa and the second most common site is the tongue.

Keywords: Buccal mucosa, Tongue, Oral cavity, Carcinoma, Male

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Introduction

Global Adult Tobacco Survey Report 2009-2010 showed that India is the second largest consumer of tobacco products [1]. It is proven that there is a definite relation between the oral cavity cancers and the consumption of tobacco products [2]. Oral cavity cancers are generally asymptomatic to begin with. Squamous cell carcinoma is the most common histological type in malignant lesions of oral cavity. Oral cavity has different sub sites and the management cancer characteristics and pattern of spread differs

among the cancers of these different subsites. Therefore it is important to study these sub sites to manage the disease accordingly. This retrospective study was undertaken to study these parameters among the patients with oral cavity cancers.

Materials and Methods

This study was performed in the department of radiation oncology, Chirayu medical college and hospital Bhopal, Madhya Pradesh. The study duration was for a period of 2 years from January 2021 to

December 2022. All the patients attending the radiation oncology OPD with oral cavity cancers during the aforementioned period were included in this study. The parameters recorded were age, gender and the site of the lesion. Only biopsy proven cases were included in this study. The data obtained was tabulated and analyzed accordingly.

Results

This study included a total of 592 cases of biopsy proven oral cavity carcinomas. There were 9 cases in the 1-25 years age group, 344 cases in 26-50 years age group, 225 cases in 51-75 years age group and 14 cases in 76-100 years age group [table 1].

Table 1

Sl no	Age group	Patients
1	1-25	9
2	26-50	344
3	51-75	225
4	76-100	14
	Total	592

Distribution of patients with oral cavity carcinomas across different age groups

The males were much more commonly affected as compared to the females. There were a total of 465 male cases and 127 female cases. The male to female ratio was 3.6:1 [table 2].

Table 2

Sl no	Gender	Patients	Percentage out of total
1	Male	465	78.5%
2	Female	127	21.5%

Distribution of the patients according to the gender

The oral cavity cancers were distributed among various subsites of oral cavity. The commonest site was buccal mucosa accounting for 54.2% of cases. Second commonest site was tongue, constituting 26.3%. Alveolus/gingivo-buccal sulcus constituted 6%, floor of mouth 0.5%, palate 3.7%, base of tongue 6.4% and lip and frenulum accounted for 2.7% [table 3].

Table 3

Sl no	Subsite	Cases	Percentage
1	Tongue	156	26.3%
2	Buccal mucosa	321	54.2%
3	GBS / Alveolus	36	6%
4	Floor of mouth	3	0.5%
5	Palate	22	3.7%
6	Base of tongue	38	6.4%
7	Lip/frenulum	16	2.7%

Distribution of oral cavity carcinomas across various sub sites.

Discussion

In this retrospective study, men had higher proportion of oral cavity carcinomas compared to females, similar to the findings reported by Iype et al., [3]. The ratio of males to females was found to be 3.6:1 whereas in another published study, Puasaini S and Brar R observed a ratio of 2:1 [4]. This higher proportion of males with oral cavity cancers compared to western studies could be explained by the fact that Indian males have much higher rate of tobacco abuse compared to females and also the oral hygiene is poorer. Also the sex ratio is lower in our country compared to the western countries.

Modi et al., [5], reported that buccal mucosa is the most common site involved in the oral cavity carcinomas. In

our study also, we observed the same findings that and we found buccal mucosal carcinomas to account for 54.2% of total oral cavity cancers studied. In our study we found that tongue was the second most common site of carcinoma in the oral cavity.

In our study, it was found that the age group affected the most was 26-50 years age group with a total of 344 cases out of total 592 cases (58.1%) belonging to this group. The second most common age group affected was 51-75 years accounting for 225 cases out of 592 cases (38%). These both age groups accounted for 96.1% of total cases of oral cavity carcinomas. This finding is similar to the findings reported by Malaovalla et al.,[6]. These findings could be attributed to the long term usage of tobacco products in these age groups.

Among various non-communicable diseases cancer has become one of the major contributors to the global disease burden and has become the leading cause of death worldwide [7]. Out of all these deaths, almost two thirds occur in developing countries[8]. Cancer accounts for 12% of total deaths worldwide due to any cause [9].

Globally, around 22 million people live with cancer at any given point of time [10,11].

Conclusion

In this retrospective study, we found that oral cavity cancers constitute a common carcinoma attending oncology opd. These cancers are found more commonly in men compared to women. These cancers affect middle age groups more commonly probably because of longer duration of tobacco abuse in these age groups. These oral cavity carcinomas affect all sub sites of oral cavity and buccal mucosa is the commonest sub site for these cancers, followed by tongue.

Awareness about these oral cavity carcinomas is essential to plan clinical and preventive strategies by identifying the appropriate target groups of relevant ages. Screening methods could be deployed to evaluate oral cavity especially buccal mucosa since it is the commonest site for oral carcinomas and accessible for evaluation by health professionals.

Financial or Other Competing Interests

None.

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