Original Research Paper | **Medicine**

Profile of oral cancer patients attending tertiary cancer care hospital, Guwahati city, Assam: A hospital based study.

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ABSTRACT

Background: Cancer is among the ten commonest cause of mortality in developing countries including India. Out of all cancers, oral cancer is one of the most common malignancies in India. **Objectives**: Study the profile of oral cancers patients attending cancer based hospital. **Methods**: Hospital based cross-sectional study, **study area**: Dr. B. Barooah cancer Institute, Guwahati city, Assam. **Sample size**: 110 cases of oral cancer. **Study period**: 1st November, 2015 to 30th April, 2016. Study variables included Socio-demographic factors, risk factors such as tobacco usage, alcohol consumptions. Data presented in the form of percentages and proportions. **Results:** Majority of the patients were above 40 years of age and males were more commonly affected, 30.90% were educated up to middle school, 87.27% patients were using smokeless tobacco. **Conclusion**: Males were commonly affected with oral cancer, lower socioeconomic class commonly affected, among them habits smokeless tobacco consumption common.

KEYWORDS | Oral, cancer, profile, Hospital.

1. Introduction:

Non-communicable diseases including cancer are emerging as major public health problems in India. Cancer or malignancy, has become one of the ten leading cause of death in India. The term 'Cancer' usually means malignant neoplasm.[1]Oral cancer is highly preventable diseases being caused by the use of tobacco and its products, either with or without alcohol.[1] Oral cancer is one of the ten most common cancers in the world. Its high frequency in Central and South East Asian countries (e.g.,India, Bangladesh, Sri Lanka, Thailand, Indonesia, Pakistan) has been well documented. It is estimated that during the year 2012, about 1.98 lac new cases and 98000 deaths of oral cancer occurred worldwide, with a mortality rate of 2.1 per lac population. [2, 3] In India for the year estimated incidence of oral cancer 10.1 cases per 100,000 population for males and 4.3 per 100,000 populations in females, oral cancer is a major problem in India. During the year, 77,003 new cases occurred in the country with 52,067 deaths due to oral cancer. [2, 3]In India, chewing 'pan'a combination of betel leaf, Areca nut, lime and usually tobacco and reverse smoking are the major etiological factors. Tobacco use and alcohol are known risk factors for cancers in oral cavity. In India 57% of all men and 11% of women between 15-49 years of age use some form of tobacco. [1,4] Despite the fact that the oral cavity is accessible for visual examination and whose oral cancers and premalignant lesions have well defined clinical diagnostic features, yet oral cancers are typically detected in their advanced stages. (1,5). Early detection would not only improve the cure rate but it would also lower the cost of treatment and the morbidity .Oral cancer is one of the most common cancer especially in the north eastern states. Use of betel quid is very common in Assam and other north eastern states (Meghalaya, Tripura, Nagaland, Manipur, Mizoram Arunachal Pradesh) where it regularly used even by women. The present study was taken up to study the epidemiological profile of oral cancer patients reporting to the Dr. B.Barooah Cancer Institute at Guwahati.

2. Material and Methods:

This was a Hospital based cross-sectional study conducted in the ENT oncology OPD at Dr.B.Barooah Cancer Institute, Guwahati. The study was conducted over a period of six months from November, 2015 to April, 2016. Sample size of the study was based on number of oral cancer patients attending Oncology OPD in the hospital during the study period. During this period a total of 110 histologically confirmed cases of Oral cancer patients attending ENT oncology outpatient department in Dr.B.Barooah Cancer Institute (BBCI), Guwahati using purposive sampling technique in a specified time interval between 8 am to 2 pm, were assessed. Patients having malignant neoplasm of lip, cheek, alveolus, tongue, floor of mouth and hard palate were included in the study and Patients not willing to participate in the study were excluded. Informed written consent was taken from each of the patient prior to the study. Presence of female attendant was ensured during the interview of female patients and data was collected using a pre tested and pre-structured questionnaire. Institutional Ethical Committee clearance was obtained. Study variables included Socio-demographic factors like age, sex, occupation, socioeconomic status, and enquiries regarding risk factors such as tobacco usage, consumption of alcohol, betel-nut and oral hygiene. Data entry and analysis done using Microsoft excel. Data presented in the form of percentages and proportions and pie chart.

3. Results:

Among 110 oral cancer patients, 36.36% of patients were in the age group of 51- 60 years followed by 30.90% in 41 - 50 years, 13.63% in 61- 70 years, 11.81% in 31 -40years and 4.54% in 21- 30 years. Only 2.72% were in the age group of ≥71 years (Table 1). Study subjects included both males and females, males constituted 82.72% (n=91) and female constituted 17.27% (n=19) [Figure 1].

Table1: Distribution of oral cancer patients according to Sociodemographic characteristics. (N=110)

Age group	Frequency (n)	Percentage (%)
21—30 years	5	4.54
31-40	13	11.81
41-50	34	30.90
51-60	40	36.36
61-70	15	13.63
≥ 71	3	2.72

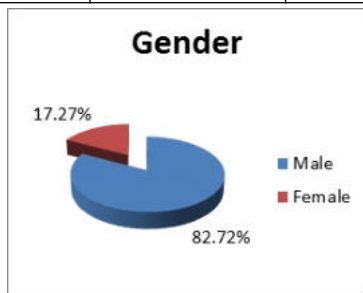| Education		
Illiterate	26	23.63
Primary school	20	18.18
Middle school	34	30.90
HSLC	18	16.36
HS and above	12	10.90
Occupation		
Unemployed	18	16.36
Agricultural	40	36.36
Business	26	23.63
Govt.Service	10	9.09
Housewife	16	14.54
Socio-economic status (B.G.Prasad,2016)		
I	3	2.72
II	14	12.72
III	35	31.81
IV	41	37.27
V	17	15.45

Figure1: Gender distribution of oral cancer patients. [Male=91 (82.72%), Female=19(17.27%)]

As shown in table-1 majority of patients 34(30.90%) were educated up to middle school level, 26 (23.63%) were illiterate and only 12(10.90%) had education up to higher secondary (HS) and above.

In table-1 showing the occupational status revealed that 40(36.36%) were related to agricultural work, 26(23.63%) were businessmen, 18(16.36%) were not working and only 10(9.09%) were in Govt service. Regarding socio-economic status of oral cancer patients that majority 41(37.27%) belonged to class IV, followed by 35 (31.81%) were class III and only 3(2.72%) belonged to class I (According to BG Prassad 2016).

Table 2: Distribution of oral cancer patients according to habits of tobacco or tobacco products. (N=110)

Habits	Frequency (n)*	Percentage (%)
Betel-nut	65	59.09
Smoking	44	40
Smokeless tobacco	96	87.27
Alcohol	30	27.27

Multiple response*

Table-2 showing majority 96(87.27%) of the respondents were using smokeless tobacco and 65(59.09%) were using betel-nut followed by 44(40%) who had habit of smoking.

Table 3:Distribution of oral cancer patients according to oral hygiene practice habit. (N=110)

Oral hygiene practice	Frequency (n)	Percentage (%)
Material used for cleaning teeth		
Finger with toothpowder/tooth paste	34	30.90
Toothbrush with toothpowder /toothpaste	56	50.90
Neem stick	20	18.18
Frequency of cleaning the teeth per day		
Never	0	
Once	83	75.45
Twice or more	27	24.54

In table-3 showing that majority 56(50.90%) of the respondents used toothbrush with toothpowder or toothpaste for cleaning their teeth while 34(30.90%) used their finger with toothpowder or toothpaste and 20(18.18%) used neem stick for cleaning the teeth. About 75.45% of the respondents brushed once and only 24.54% brushed twice or more daily.

4. Discussion:
In this study, oral cavity lesion was more commonly found in the age group of 51-60 years, followed by 41-50 years, 61 -70 years and 31- 40 years . It was observed that age group 41- 60 years comprised of 67.26% of total cases. Similar to this, a study by N.Rajesh et al, 2014[1] reported 32.5% of patients were in the age group of 40 49 years followed by 26.6% in 50 59 years, 15.8% in 60 69 years, 15% in 30 39 years and 6.6% in 20 29 years. Only 3.3% were in the age group of 70 79 years. In another a study by Patel MM et al[6] reported 12.9% of oral and oropharyngeal malignancies below 35 years age, 23.8% between 35 and 45, and 63.3% cases over 45 years of age. In a study by Dhar PK et al [7] on oral and oropharyngeal cancer reported maximum incidence (35.7%) in the age range of 51-60 years.

In a study by Patel MM et al [6] 75% of patients were males. Mehrotra Ravi et al[8] from Allahabad, India reported a male: female ratio of 3.27:1. In another study by N.Rajesh et al, 2014[1] on oral cancer patients included both males and females, males constituted 51% (n=62) and female constituted 49% (n=58).

In this study majority 34(30.90%) were educated up to middle school and only 12(10.90%) were educated HS and above.

In this study, 87.27% of patients were using smokeless tobacco, 59.09% were using betel nut, 40% were smokers and 27.27% were alcoholics .In the study of Khandekar SP et al[9], 71.3% of patients were chewing tobacco. 63.3% were smoking tobacco in the form of cigarettes or bidis. In the study of Durazzo MD et al[10] tobacco smoking was identified in 80.8% patients as a risk habit for oral cancer. About 50.90% of the respondents used toothbrush with toothpowder or toothpaste for cleaning their teeth while 30.90% used their finger with toothpowder or toothpaste and 18.18% used neem stick for cleaning the teeth. About 75.45% of the respondents brushed once and only 24.54% brushed twice or more daily.

5. Conclusion:
The incidence of oral cancer of 67.26% was found in the age group of 41-60 years. Majority that is 82.72% of the respondents were male, lower socioeconomic class were more commonly affected, among them 87.27% uses smokeless tobacco and 59.09% were betel nut users. About 50.90% of the respondents used toothbrush with toothpowder or toothpaste for cleaning their teeth and About 75.45% of the respondents brushed once daily.

7. Conflicts of interest: There are no conflicts of interest.

8. References:
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