

A Study on Clinical Presentations of Oral Cancer at Tertiary Care Hospital, Bellary, Karnataka



Medical Science

KEYWORDS : Oral malignancy; Oral cancers; Oral lesions; Squamous cell carcinoma; smokeless tobacco

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ABSTRACT

Introduction: Oral malignancy is the most common form of malignancy in India and it constitutes a significant cancer burden in India. Each year about 5,00,000 new cases occur globally and in India, about 56,000 new cases are reported each year. **Methodology:** This study was conducted from Jan 2012 to Jun 2013 in the Department of Surgery, Vijayanagara institute of Medical sciences Hospital, Bellary. Total 100 patients were studied. Patients having complaint of lesion in oral cavity were selected using purposive sampling technique. **Results:** Totally 100 patients with oral cancer were studied and it was observed that oral cancer was more commonly found in the age group of 40 – 49 years (36%), Males were 49% and females were 51% of total study subjects. History of substance abuse revealed that 94% of patients were using smokeless tobacco, 52% were using betel nut, 22% were smokers and 15% were alcoholics. The most common type of lesion of oral cavity was Ulcerative (63%) followed by infiltrating (27%) and papillary (10%) **Conclusion:** Oral cavity cancer more commonly affects age more than forty years. No difference is observed in gender suffering with oral cavity cancer. Most common type of lesion of oral cavity is Ulcerative.

Introduction:

Oral cancer is the sixth most common cancer worldwide¹. More than 90% of all oral cancers are squamous cell carcinoma^{2,3}.

Oral malignancy is the most common form of malignancy in India and it constitutes a significant cancer burden in India. Each year about 5,00,000 new cases occur globally and in India, about 56,000 new cases are reported each year.

Oral cancer is a highly preventable disease, being caused by the use of tobacco and its products, either with or without alcohol. According to WHO research, 50% increase in oral cancers by the year 2025 is expected. Most of which will be due to tobacco use. In the west, this is mostly due to cigarette smoking combined with alcohol abuse. In India, chewing "Pan" a combination of betel vine leaf, Areca nut, Lime, and usually tobacco] and reverse smoking are the major etiological factors. Tobacco present in the betel quid is the major carcinogen, although there seems some relationship to the source of slaked lime and the areca nut itself.

Other factors like betel leaf, HPV infection, nutrition deficiencies, sepsis, and sharp tooth are also suggested of playing etiological role in malignancy.

Oral SCC may take various clinical forms. It may resemble a leukoplakia, a verrucous leukoplakia, an erythro-leukoplakia, or an erythroplakia, any of which may eventually develop into a necrotic looking ulcer with irregular, raised indurated borders, or into a broad based exophytic mass with a surface texture which may be verrucous, pebbled or relatively smooth. When traumatized, oral SCC bleeds readily and often becomes superficially secondarily infected. Oral SCC is usually painless unless it is secondarily infected. Large lesions may interfere with normal speech, mastication or swallowing^{3,4,5}

Hence a study was carried out to know the various clinical presentations of oral cancer

Methodology:

This was descriptive case series study conducted at VIMS Medical College Hospital for eighteen months from January 2012 to June 2013. A total of 100 patients having malignant neoplasm of lip, cheek, alveolus, tongue, floor of mouth and hard palate were included using purposive sampling technique. Totally 100 patients participated in this study.

No specific criteria were used among the oral cancers. After obtaining written informed consent, Detailed history was recorded in a proforma, regarding age, sex, presenting complaints, habits of chewing tobacco, pan and gutkha, habit of smoking and consumption of alcohol. Thorough examination of oral cavity was done and site of growth was noted. A thorough clinical examination of the neck and other parts of the body was also done and staged in TNM staging.

All patients underwent routine baseline investigations like urine for albumin and sugar, complete hemogram, blood for urea and sugar, serum for creatinine and bilirubin, chest x ray and ECG.

Results:

Totally 100 patients with oral cancer were studied and it was observed that oral cancer was more commonly found in the age group of 40 – 49 years (36%), followed by 50 – 59 years (31%), 30 – 39 years (14%), 60 – 69 years (10%) and 70 – 79 years (3%). More interestingly 6% of oral cancer was found in the younger age group of 20 – 29 years

Table.no1: Distribution based on age		
Age group	Frequency	Percentage
20 – 29 years	06	06%
30 – 39 years	14	14%
40 – 49 years	36	36%
50 – 59 years	31	31%
60 – 69 years	10	10%
70 – 79 years	03	03%
Total	100	100%

Patients comprised of both males and females. Males were 49% and females were 51% of total study subjects. There was no much difference in proportion of males and females.

History of substance abuse revealed that 94% of patients were using smokeless tobacco, 52% were using betel nut, 22% were smokers and 15% were alcoholics

In this study, the most common type of lesion of oral cavity was Ulcerative (63%) followed by infiltrating (27%) and papillary (10%)

Table. no 2: Distribution based on presentation

Presentation	Frequency	Percentage
Ulcerative	63	63%
Infiltrating	27	27%
Papillary	10	10%
Total	100	100%

This study found that left buccal mucosa is the most common site of oral cancer (28%) followed by left lower GBS (13%), right lateral border of tongue (12%), left lateral border of tongue (11%), left retro molar trigone (11%) and right buccal mucosa (9%). In total buccal mucosa constituted for 37% of cases and border of tongue 23%. Among 3% of patients each, floor of mouth, hard palate and left angle of lip were common site

Table.no3: Distribution based on site

Site of oral cancer	Frequency	Percentage
FLOOR OF MOUTH	03	03%
HARD PALATE	03	03%
LT ANGLE OF LIP	03	03%
LT BUCCAL MUCOSA	28	28%
LT LATERAL BORDER OF TONGUE	11	11%
LT LOWER GBS	13	13%
LT RETRO MOLAR TRIGONE	11	11%
RT BUCCAL MUCOSA	09	09%
RT LATERAL BORDER OF TONGUE	12	12%
RT LOWER LIP	07	07%
Total	100	100%

Majority of patients had a history of duration of cancer of 6 months i.e 80% and 20% of patients had a history of duration of cancer between 7 – 24 months at presentation

Considering the largest diameter of oral cavity lesion, 27% of patients had a size of 2 cms lesion, 26% had a lesion of size 5 cms, 13% of patient had a lesion of 4 cms, and 6% of patients had a lesion of 8 cms. Only two patients had lesion of size 10 cms

TNM staging revealed that 27% of patients had moderately advanced local disease (T4a), 33% of patients had a Tumor >4 cm in greatest dimension, 16% of patients had Tumor >2 cm but ≤4 cm in greatest dimension and 24% had Tumor ≤2 cm in greatest dimension.

Discussion:

In this study, oral cavity lesion was more commonly found in the age group of 40 – 49 years (36%), followed by 50 – 59 years (31%), 30 – 39 years (14%), 60 – 69 years (10%) and 70 – 79 years (3%). It was observed that age group 40 – 59 years comprised of 67% of total cases. Similar to this, a study by Patel MM et al^{6,7} 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 Mehrotra Ravi et al⁸, the maximum incidence was in 50-59 years age range

Iype EM et al⁹ found 2.8% of oral cancer in young patients below 35 years of age.

This study comprised both males and females almost in equal proportion i.e Males were 49% and females were 51% of total study subjects. But contradicting to this, other studies have difference in gender with oral cancer.

In a study by Patel MM et al⁷ 75% of patients were males.

Mehrotra Ravi et al⁸ from Allahabad, India reported a male: female ratio of 3.27:1. Iype EM et al⁹ from Trivendrum, Kerala found a higher preponderance in males (70%) compared to females (30%). Dhar PK et al¹⁰, in their study reported that 68.3% of patients were males.

However gender is not a risk factor per se in oral and oropharyngeal malignancies. The difference may be due to the high rate of tobacco and alcohol consumption among males. Moreover tobacco is consumed in both smoking and chewing form in males whereas in our society females are usually not indulged in smoking. This can also be attributed to more males seeking early medical consultation.

In my study, 94% of patients were using smokeless tobacco, 52% were using betel nut, 22% were smokers and 15% were alcoholics

In the study of Khandekar SP et al¹¹, 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 al¹² tobacco smoking was identified in 80.8% patients. Alcohol consumption history was retrieved in 56.6% patients

Dias et al¹³ reported history of tobacco use in 57.8% of patients with oral cancer. Alcohol consumers were 50% of the total number of cases. 43.8% of the patients were both alcoholics and smokers.

Epidemiological studies have shown that the sites of occurrence for oral cancer differ widely. Tongue, lip, and floor of the mouth are the most frequent sites of lesions of squamous cell carcinoma in the oral cavity¹³.

This study found that left buccal mucosa is the most common site of oral cancer (28%) followed by left lower GBS (13%), right lateral border of tongue (12%), left lateral border of tongue (11%), left retro molar trigone (11%) and right buccal mucosa (9%). In total buccal mucosa constituted for 37% of cases and border of tongue 23%

Wahi et al¹⁴ (1965) reported that the gross appearance of oral cavity tumor when the patient was first examined was either ulcerative or diffuse infiltrative type. The exophytic type of growth was seen in a very few patients. So based on this clinical presentation, In this study, the most common type of lesion of oral cavity was Ulcerative (63%) followed by infiltrating (27%) and papillary (10%)

Khanna¹⁵ (1985) reports three types of growth of oral cancer (i) proliferative (ii) ulcerative and (iii) indurated. Maximum cases were reported to have ulcerative growth and indurated growth was present in carcinoma tongue.

Conclusion:

- Oral cavity cancer more commonly affects age more than forty years but younger age group are not completely spared
- Tobacco, Betel nut and alcohol consumption are important etiological factor for oral cancer
- Most common type of lesion of oral cavity is Ulcerative

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