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Clinicopathological Study of Oral Malignancies in Great Eastern Medical School and Hospital

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ABSTRACT

INTRODUCTION

Throughout the world, oral cancer ranks sixth in terms of prevalence and accounts for 30% of head and neck malignancies. Increased use of cigarettes, alcohol, and other carcinogenic items has been linked to an increase in the incidence of mouth cancer in India. Despite major advancements in surgery, radiotherapy, and chemotherapy methods, advanced stages of the illness are difficult to treat. The study's aims to calculate and analyse the average age, sex, anatomical subsite, aetiology, morphological characteristics, stage of presentation, and histology of oral cancers.

MATERIALS AND METHODS

Patients attending the ENT OPD at Great Eastern Medical School and Hospital were evaluated and studied. All malignant tumours of the lip, cheek, alveolus, tongue, floor of the mouth, and hard palate were included in this investigation. To determine the origin and histological grading of the tumour, all patients underwent wedge biopsy of the lesion, followed by histopathology evaluation of the specimen.

RESULTS

The male to female oral cancer ratio is 3:2. In 50 patients, 22 of them, had buccal cancer. Of the 50 patients, 39 had stage I presentations.

CONCLUSION

Oral cancer incidence peaked in the sixth decade of life, with a 3:2 male to female ratio. The most typical location is the buccal mucosa. 50 patients, or 22 of them, had buccal cancer. The majority of the subjects showed ulcerative lesions and pain. All of the patients exhibited Squamous cell carcinoma as a histopathological type. Due to increasing knowledge and the accessibility of medical treatments, 39 out of 50 patients appeared at stage I.

Keywords : ENT OPD, Cigarettes, Alcohol, Oral Cancers, Tobacco, Histology, Grading, Tnm Staging, Buccal Mucosa

I. INTRODUCTION

Throughout the world, oral cancer ranks sixth in terms of prevalence and accounts for 30% of head and neck malignancies [1]. Oral cavity is the area of the aerodigestive tract extends from the vermillion border of the lips to the meeting point of the hard and soft palates as well as the circumvallate papillae of the tongue. Lips, buccal mucosa, gingiva, floor of mouth, anterior 2/3 of tongue, hard palate, and retromolar trigone are anatomical components of this area [2].

Increased use of cigarettes, alcohol, and other carcinogenic items has been linked to an increase in the incidence of mouth cancer in India. Although while surgery, radiotherapy, and chemotherapy treatments have significantly improved, the illness is still difficult to treat when it is advanced.

The aim of the study is to estimate and analyse the mean age, sex, anatomical subsite, etiology, morphological characters, stage at presentation and histology of oral malignancies.

II. MATERIALS AND METHODS

This study was conducted at Great Eastern Medical School and Hospital from november 2020 to august 2022.

Patients attending the ENT OPD were evaluated and studied.

No particular criteria were applied to oral malignancies.

All malignant neoplasms of the tongue, floor of the mouth, alveolus, lips, cheeks, and hard palate were included in this study.

The history, symptoms, aetiology, and complications of oral malignancies were all carefully recorded.

A thorough clinical inspection of primary metastasis was also done and staged in TNM staging.

All patients underwent wedge biopsy of the lesion, and histopathological investigation of the specimen was carried out to determine the native and histological grading of the tumour.

III. RESULTS

A total of 50 patients who attended ENT opd in Great Eastern Medical School and Hospital fromm November 2020 to August 2022 were included in this study.

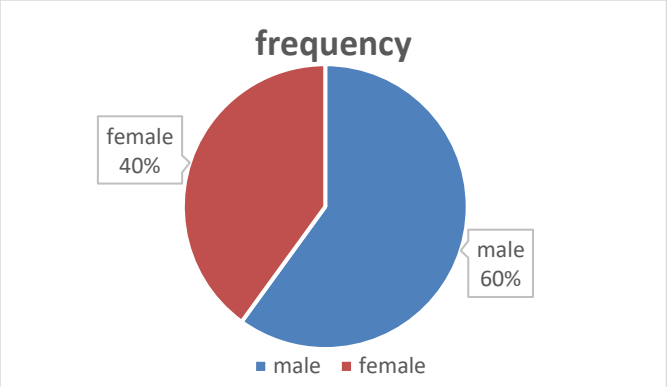
AGE WISE DISTRIBUTION

Table 1 : AGE DISTRIBUTION

Age group	Frequency	Percentage
40-50	14	28.0%
51-60	20	40.0%
61-70	13	26.0%
>71	3	6.0%

SEX WISE DISTRIBUTION

Figure 1 : SEX DISTRIBUTION



In the study group, men exceed women 3:2, hence there is a male predisposition.

Table 2 : GENDER DISTRIBUTION

Gender	Frequency	Percentage
Male	30	60
Female	20	40

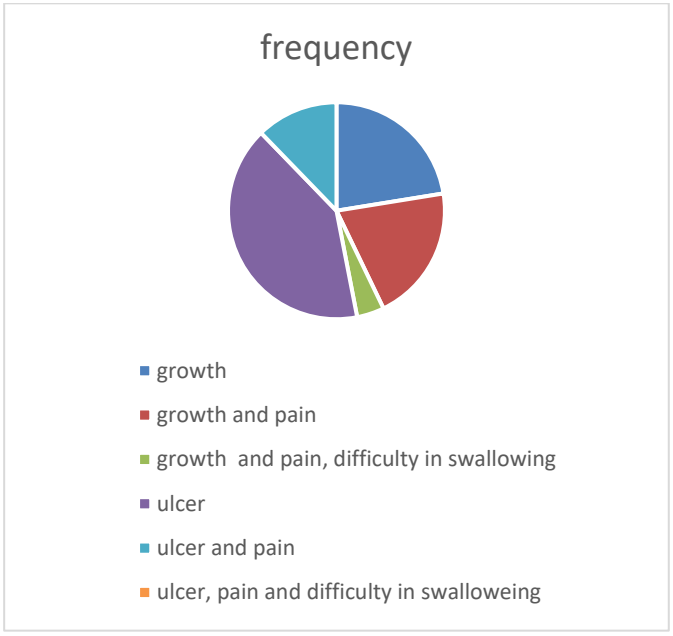
MODE OF PRESENTATION

Table 3 : FREQUENCY OF PRESENTING SYMPTOMS

Chief complaints	Frequency	Percentage
Growth	11	22.0%
Growth and pain	10	20.0%
Growth and pain and difficulty in swallowing	2	4.0%
Ulcer	20	40.0%
Ulcer and pain	6	12.0%
Ulcer, pain and difficulty in swallowing	1	2.0%

Ulcer is the most frequent manifestation, as was already mentioned. The majority of the patients' major complaints were multiple ones.

Figure 2 : FREQUENCY OF PRESENTING SYMPTOMS



DISTRIBUTION OF COMORBITIES

Table 4 : DISTRIBUTION OF COMORBITIES

Past history	Frequency	percentage
CAD	1	2.0%
Diabetes	11	22.0%
Diabetes and Hypertension	4	8.0%
Diabetes / CAD	1	2.0%
Diabetes /hypertension/CAD	2	4.0%
Pulmonary Tuberculosis	1	2.0%
Not significant	30	60.0%

Although diabetes is the most frequent co-morbid condition linked to oral cancer, most patients had multiple co-morbid conditions at presentation.

Table 5 : Frequency of risk factors

Personal history	Frequency	percentage
Smoker	13	26.0%
Smoker and alcohol	9	18.0%
Tobacco chewing	4	8.0%
Betel nut chewer	2	4.0%
Not significant	22	44.0%

The main risk factor is smoking. In this study, most of the patients have smoking associated with history of alcohol intake.

FREQUENCY OF DISTRIBUTION OF MALIGNANCY IN SUBSITES OF ORAL CAVITY

Table 6 : FREQUENCY OF SUBSITES DISTRIBUTION

Local examination	Frequency	percentage
Tongue	19	38.0%
Buccal mucosa	22	44.0%

Angle of mouth	**1**	**2.0%**
Hard palate	**2**	**4.0%**
Lip	**2**	**4.0%**
Retromolar trigone	**1**	**2.0%**
Upper alveolus	**3**	**6.0%**

Buccal mucosa is the most common subsite involved

TNM STAGING

Table 7 : TNM STAGING

TNM staging	Frequency	Percentage
(T1N0M0) Stage i	39	78.0%
(T2N0M0) Stage ii	1	2.0%
(T1N1M0) Stage iii	8	16.0%
(T1N2M0) Stage iv	2	4.0%

Among the patients with oral malignancies, the presentation of the disease is more with T1N0M0 (Stage I) followed by T1N1M0 (Stage III).

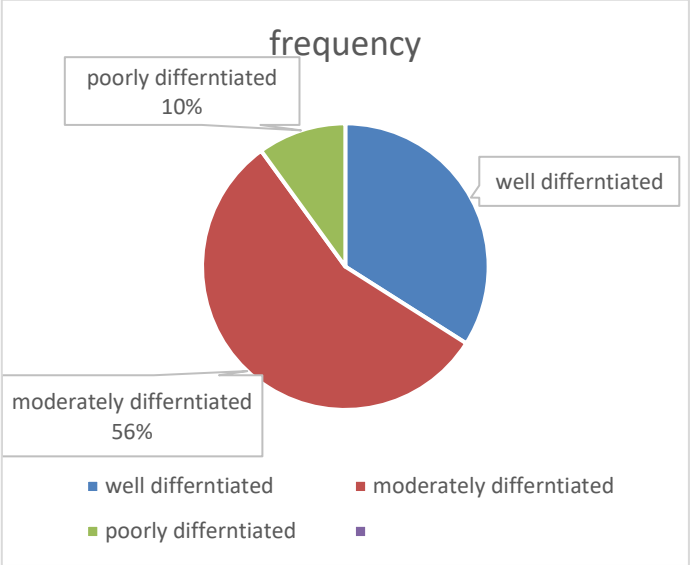
DISTRIBUTION OF HISTOLOGICAL SUBTYPES

Table 8 : DISTRIBUTION OF HISTOLOGICAL SUBSITES

Histology	Frequency	Percentage
Well differntiated	17	34.0%
Moderately differntiated	28	56.0%
Poorly differntiated	5	10.0%

All of the patients in this study group had squamous cell carcinoma, the most prevalent histological subtype of which was moderately differentiated squamous cell carcinoma.

Figure 3 : FIGURE SHOWING DISTRIBUTION OF HISTOLOGICAL SUBSITES



DISCUSSION

In the study that was done, oral cancers made up 5.2% of all cancers. The incidence is roughly 2%, according to data from the Alberta cancer registry. In the US, mouth cancer accounts for 3% of all cancer cases.

Table 9 : Incidence of oral cancers among various studies

Study	Percentage
Alberta	2
United States	3
Present study	5.2

AGE OF INCIDENCE

The majority of the patients in the current study are in the sixth and seventh decades of life. The fifth and sixth decade saw the highest incidence in the Alberta cancer registry. The typical age of onset in the United States was in the fifth decade.

Table 10 : Age distribution in various studies

Study	Age (decade)
Alberta	5th, 6 th
United States	5 th
Present study	6th, 7 th

SEX DISTRIBUTION AMONG OTHER STUDIES

In this study, the male to female ratio was 3 to 2. In one Alberta research, the ratio was 2:1, whereas in the United States, it was 3:1.

Table 11 : Sex distribution among various studies

Study	Male: Female
Alberta	2:1
United States	3:1
Present study	3:2

SITE OF DISTRIBUTION

The buccal mucosa, followed by the tongue, the alveolus, the hard palate, the floor of the mouth, and the lip were the most frequent sites. The buccal mucosa is the most frequent site in both the Alberta and American studies, followed by the tongue, lip, the floor of the mouth, the alveolus, and the hard palate.

Table 12 : Site distribution among various studies

Study	Buccal mucosa	tongue	alveolus	FOM	HP	Lip
Alberta	29.5%	23%	6.5%	15.5%	5%	20%
United states	28%	24%	9%	12%	4%	22%
Present study	44%	38%	6%	0%	4%	4%

The most prevalent variety, at 100%, was squamous cell carcinoma. The incidence in the other investigations was 88% and 90%, respectively, therefore these findings were comparable.

SUMMARY

50 patients who attended Great Eastern Medical School and hospital during the period of november 2020 to august 2022

The sixth decade of life saw the highest incidence of oral cancer, with a 3:2 male to female ratio.

The buccal mucosa is the most typical location. Among 50 patients, 22 of them, had buccal cancer.

Squamous cell carcinoma was the histological type present in all of the cases.

The majority of patients complained of pain and ulcerative lesions when they first arrived. Due to increasing knowledge and the accessibility of medical treatments, 39 out of 50 patients appeared at stage I.

CONCLUSION

Early detection of oral cancers and treatment can be done by increasing knowledge and accessibility to treatments.

However primary prevention should focus on reduction of main causes, namely tobacco and alcohol consumption

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