

Oral Cavity Tumours, A Clinical Experience in a Tertiary Care Center

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ABSTRACT

Objective: To determine the age range, gender distribution, histological types, sites, neck node involvement, and surgery as modality of treatment in diagnosed cases of oral cavity tumours in a tertiary care centre.

Study Design: Descriptive Study

Place and Duration of Study: The study was carried out in ENT Department, CMH Rawalpindi for the duration from Dec 2008- Dec 2011.

Materials and Methods: Data of 113 biopsy proven cases of oral cavity tumors who underwent surgery at CMH Rawalpindi, were retrieved from Armed Forces Institute of Pathology's Tumour Registry and from Head and Neck Oncology Forum Registry, and were evaluated.

Results: Out of 113 patients with oral cavity tumours, 87 (77%) were male, while 26 (23%) were female, the male: female ratio being 3:1. The mean age of the patients was 59.4 years, ranging from 40 to 75 years. Site distribution of the tumours was: Tongue: 61(54%), buccal mucosa 24 (21%), floor of mouth 18 (16%), and hard palate 10 (9%). The histology of tumours showed Squamous cell carcinoma in 102 (90%) and tumours of Salivary gland origin in 11(10%). Sixty four (56%) of these patients had N₀ disease, 10 (9%) had N₁ disease, 8 (7%) had N_{2a} disease, 27 (25%) had N_{2b} disease, 3(2%) had N_{2c} disease, while 1 patient (1%) had N₃ disease. Resection of the tumour along with Supra-omohyoid neck dissection was carried out in 64 (56%) patients, while resection with radical neck dissection was done in 49 (44%) patients. Primary closure was carried out in 62 (55%) patients, while secondary reconstruction was done in 51 (45%) patients.

Conclusion: Presentation of oral cavity tumours occur at an advanced age with male preponderance in our population. Early presentation results in lesser local spread, leading to less aggressive surgical approach with selective neck dissection.

Key Words: Oral cavity tumors, Squamous cell carcinoma, Surgical treatment.

Introduction

Head & neck cancers are the 6th commonest cancers.¹ Making 3% of all the cancers while oral cavity cancers represent approximately 48% of them, majority being squamous cell carcinoma (SCC).² Head neck cancers are considered to be the commonest cancers in countries like India, Pakistan, Bangladesh etc. They usually occur in middle aged and old people. Major risk factors are tobacco and alcohol intake.³ And both have a synergistic action.⁴ In South East Asia its incidence is high due to betel quid chewing.⁵ Generally incidence is 2-3 times higher in the males.⁶ But now almost equal gender distribution may be seen in many developed

countries.⁷ Almost 90% of these tumours are squamous cell carcinomas, while rest comprise of salivary gland tumours, sarcomas and melanomas.⁸ Commonest site is the tongue,⁹ usually the lateral border, followed by the buccal mucosa and floor of mouth. Commonest presentation is of a non-healing ulcer. In 30-80% of the patients, cervical lymph nodes may be involved on presentation.¹⁰

Over the years the modalities of treatment has not significantly changed. Surgery and radiotherapy alone are the treatment modality in the early cases, while combined therapy with surgical resection followed by radiotherapy or chemo-radiotherapy is the standard treatment modality in advanced disease.¹¹ Cervical lymph node metastasis is a main determinant in the staging and the choice of treatment modality.¹²

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Consequently, neck dissection forms an integral aspect of the surgical treatment of Oral Squamous Cell Cancers, and has evolved from radical to more selective and functional procedures with our improved understanding of the distribution of regional metastasis.¹³ Recent studies have shown that selective neck dissection is oncologically safe for head neck cancers with clinically negative node necks.¹⁴ Successful reconstruction is mandatory for the success of any surgery for oral cancers.¹⁵ A descriptive study was carried out in ENT Department Combined Military Hospital Rawalpindi to determine the age range, gender distribution, histological types, sub-sites, neck node involvement, and surgery as modality of treatment in diagnosed cases of oral cavity tumours for the duration from December 2008 to December 2011.

Materials and Methods

Data of 113 biopsy proven patients of oral cavity tumours, operated upon, in the duration from December 2008- December 2011, was retrieved from AFIP Tumor Registry and Head and Neck Oncology Forum Registry and was evaluated.

The data was entered in SPSS version 12 and the cases were evaluated for the age of patient, gender, histology of tumor, tumor site, neck node involvement, and the surgical procedure done.

Results

Male to female ratio was found to be 3:1 as inferred from Figure 1. The mean age of presentation was found to be 59.4 years ranging from 40-75 years.

With regards to site, more than half of the patients had tumors of tongue, followed by tumors of buccal mucosa, tumors of floor of mouth and tumors of hard palate

respectively as shown in Table I.

The most common histological diagnosis was Squamous Cell Carcinoma followed by salivary gland tumours as shown in Figure 2.

Neck nodes involvement in these 113 patients is shown in Table II.

All these patients were staged according to TNM classification. Sixty four (56%) patients were grouped into early stage cancer of the oral cavity (Stage I & II), while 49 (44%) were grouped as advanced disease (Stage III & IV). Resection of the tumour along with Supraomohyoid neck dissection was carried out in 64 (56%) patients, while Resection with Radical neck dissection was done in 49 (44%) patients.

Primary closure was carried out in 62 (55%) patients, while secondary reconstruction had to be carried out in 51 (45%) patients. With regards to secondary reconstruction, radial free forearm flap reconstruction was done in 27 (24%) cases, pectoralis major flap reconstruction in 14 (12%) patients, while osseocutaneous fibula flap reconstruction was carried out in 10 (9%) patients.

Discussion

Oral cancer is the eighth commonest cancer in the developing countries and sixteenth commonest in developed countries. It is diagnosed usually at an advanced stage and approximately 30% of the patients delay seeking help for more than 3 months following the self discovery of symptoms. In Pakistan, oral cavity cancers are found to be the leading tumours.^{17,18} In our study the mean age of the patients was found to be 59.4 years. Almost similar mean age has been shown in another study.¹⁹ And it is probably due to prolonged exposure of the mucosa to tobacco, alcohol etc. But now, the

incidence is increasing among relatively younger population. In our study the male to female ratio was 3:1 with 77% male and 23% female patients. Carvalho et al also showed a similar gender distribution in the developing countries.⁷ As ours is a developing country, the same pattern prevails. In our study, the tongue was found to be the commonest site involved, followed by the buccal mucosa and floor of mouth respectively. A study carried out by Razfer .et .al noted that 43.9% tumors involved the tongue, 27.3% involved the floor of mouth, 24.2% involved the alveolus and buccal mucosa while 3.8% involved hard palate.¹⁷ Another study also showed tongue (58%) as the leading site of oral cancers.⁹ Our results also showed a higher incidence of tongue tumours but with a higher percentage, and a relatively higher incidence of buccal mucosa tumours. Similarly, we had a higher incidence of hard palate tumours. Probably this slight difference is because of betel quid chewing and Naswar (Oral snuff) placement.

In our study commonest histological type of tumours was squamous cell carcinoma and it is similar to data given in a study by Bhurguri et al.¹⁷ Our results showed palpable cervical lymph nodes in 44% of the patients which are similar to a study by Fukano et al.¹⁰ Thus 56% patients presented to us at an earlier stage leading to expectation of a better prognosis as shown in study by Elwood & Gallagher.²⁰

In patients with early stage disease, having N₀ neck, tumour resection was carried out along with Supra-omohyoid neck dissection. It is very logical because of much extensive lymphatic network draining the oral cavity. In rest of the cases with advanced

disease, the surgical resection was carried out along with radical neck dissection. Although there is recent trend for selective neck dissection even in advanced cases, but in our center, we adhere with radical neck dissection for better prognosis in advanced cases.

Conclusion

Presentation of oral cavity tumours occur at an advanced age with male preponderance as occurs in other developing countries. Early presentation results in lesser local spread, leading to less aggressive surgical approach with selective neck dissection.

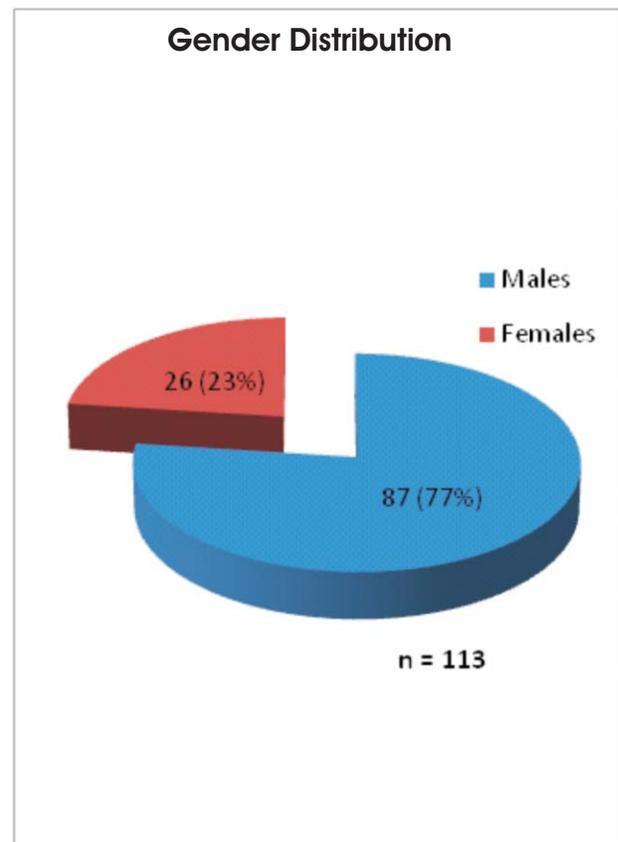


Figure 1: Gender distribution in patients with Oral Cavity Tumours

Table I: Site distribution in patients with Oral Cavity Tumours

Site Distribution (n= 113)		
S. No	Site	No. of Patients
1.	Tongue	61(54%)
2.	Buccal Mucosa	24 (21%)
3.	Floor of Mouth	18 (16%)
4.	Hard Palate	10 (9 %)

Table II: Incidence of Cervical Nodes in Oral Cavity Tumours

Neck Node Involvement (n= 113)		
S. No	Level	No. of Patients
1.	N0	64 (56%)
2.	N1	10 (9%)
3.	N2a	8 (7%)
4.	N2b	27 (25 %)
5.	N2c	3 (2%)
6.	N3	1 (1%)

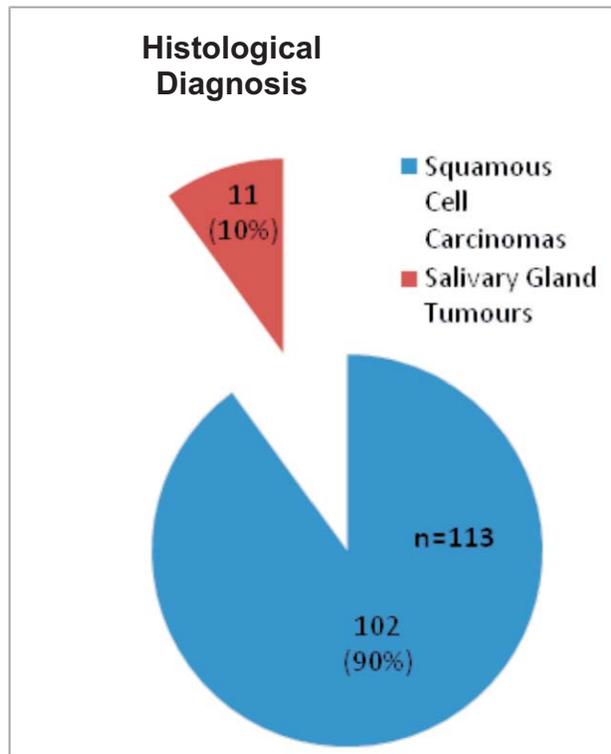


Figure 2: Histology of Oral Cavity Tumours

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