

Clinical profile of orofacial malignancies at tertiary care hospital in Aurangabad district of Maharashtra: an observational study

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Abstract

Background: Oral and maxillofacial pathologies are diverse and reports from different parts of the world show differences in the pattern of maxillofacial tumours seen. There is a need to observe and analyze the clinical data from various regions in India so as to know the epidemiological and clinical details related to the problem which may help in designing better prevention and management strategies as well as allocation of resources for dealing with the disease. Present study describes the clinical profile of Orofacial cancer patients visiting Government Medical College and Hospital (GMCH), Aurangabad which is a well known tertiary referral centre in Marathwada region of Maharashtra. **Methods:** This is a study of 40 patients who had visited GMCH, Aurangabad for treatment during the period of August 2011 to October 2013. All 40 patients had biopsy proven carcinomas. Age and sex distribution of the cases was described. In local examination of the lesion, the clinical stage of the tumour was determined by TNM staging. Detailed examination of contra lateral as well as ipsilateral side of the neck was done for presence or absence of lymph glands. **Results and Conclusions:** Observations show that in our study maximum numbers of cases have occurred in 4th and 5th decades of life. The study comprised of 27 males and 13 females. Male to female ratio is 2.1:1. Carcinoma of the buccal mucosa was the most common site and most of the patients visiting hospital came in intermediate stages of cancer i.e. stage II and stage III. Present study gives valuable information regarding the clinical profile of oral cancer patients from the Marathwada region of Maharashtra.

Keywords: Carcinoma buccal mucosa, Orofacial cancers, Carcinoma tongue.

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INTRODUCTION

Oral and maxillofacial pathologies are diverse and reports from different parts of the world show differences in the pattern of maxillofacial tumours seen.^{1,2} Tumours arise from any part of the soft tissues and spread to involve the mucodermal tissues to different extent. Rate of growth and extent of involvement depend on the nature of the lesion. The categories of lesions of soft tissues include

benign and malignant tumours³. The treatment and outcome of these lesions are determined by the extent of spread/stage of the disease⁴. There is a need to observe and analyze the clinical data from various regions in India so as to know the epidemiological and clinical details related to the problem which may help in designing better prevention and management strategies as well as allocation of resources for dealing with the disease. Government Medical College and Hospital (GMCH), Aurangabad is a well known tertiary referral centre in Marathwada region of Maharashtra where surgical and palliative care is given to cancer patients. Present study describes the clinical profile of Orofacial cancer patients visiting the hospital during the study duration.

METHODS

This is a study of 40 patients who had visited GMCH, Aurangabad for treatment during the period of August 2011 to October 2013. As previously mentioned this

hospital is a referral centre for patients with all types of malignancies. So, many patients with oral malignancies are coming to this hospital. The Institutional Ethics Committee approved the study protocol prior to the commencement of the study. Informed consent was taken from all the participants in the study. After collecting the preliminary data, name, age, sex occupation, religion etc. a thorough history was taken in each case. All 40 patients had biopsy proved carcinomas. A thorough general and systematic examination was carried out for each patient. In local examination of the lesion, the clinical stage of the tumour was determined by TNM staging. Detailed examination of contra lateral as well as ipsilateral side of the neck was done for presence or absence of lymph glands. Radiological investigations like OPG, oblique and A. P. view of the mandible; chest X-ray, CT neck + PNS, Colour Doppler of upper limb were done wherever required.

OBSERVATIONS

Table 1 shows age distribution of patients with Orofacial cancers

Table 1: Age Distribution of Patients with Orofacial Cancers

Age in Years	No. of Cases	Male	Female
11-20	-	-	-
21-30	3	3	-
31-40	13	9	4
41-50	11	9	2
51-60	5	2	3
61-70	7	3	4
70 and above	1	1	-
Total	40	27	13

Table 2: Sex Distribution and the Site of Primary in Patients with Oral Cancers

Site of lesion	No. of Cases	Male	Female
Ca Buccal mucosa	22	16	6
Ca tongue	7	4	3
Ca upper lip	1	-	1
Ca lower lip	4	3	1
Ca lower alveolus	2	2	-
Ca upper alveolus	1	-	1
Ca floor of mouth	3	2	1
Total	40	27	13

In the present study, all the malignancies were reported as squamous cell carcinoma after biopsy.

Table 3: Histological Grading

Histological Grading	Buccal Mucosa	Tongue	Lip		Alveolus		Floor of Mouth	Total
			Upper	Lower	Upper	Lower		
Grade 1 (well differentiated)	17	6	1	2	1		2	29
Grade 2 (well to moderately differentiated)	3	1		2		2	1	9
Grade 3 (Moderately differentiated)	2							2
Grade 4 (poorly differentiated)								
Total	22	7	1	4	1	2	3	40

Table 4: Orofacial cancers and their clinical stage

Site of Malignancy	Patients come in stage				Total
	I	II	III	IV	
Buccal Mucosa	2	8	9	3	22
Tongue	1	5	1	-	7
Upper Lip	-	-	1	-	1
Lower Lip	-	2	2	-	4
Lower alveolus	-	1	1	-	2
Upper alveolus	-	-	1	-	1
Floor of mouth	-	-	2	1	3
Total	3	16	17	4	40

To show TNM classification of Carcinomas from various sites, data is presented as follows:

Table 5: Carcinoma Buccal Mucosa and T. N. M. staging

Buccal Mucosa	T ₁	T ₂	T ₃	T ₄
N ₀	2	7	7	2
N ₁		1	2	1

Table 6: Carcinoma Tongue and TNM staging

Carcinoma Tongue	T ₁	T ₂	T ₃	T ₄
N ₀	1	4	1	
N _{3a}		1		

Table 7: Carcinoma of Upper Lip and T.N.M. staging

Carcinoma Upper Lip	T ₁	T ₂	T ₃	T ₄
N ₀			1	

Table 8: Carcinoma Lower Lip and T.N.M. staging

Carcinoma Lower Lip	T ₁	T ₂	T ₃	T ₄
N ₀		2	2	

Table 9: Carcinoma Lower Alveolus and T.N.M. staging

Carcinoma Lower Alveolus	T ₁	T ₂	T ₃	T ₄
N ₁		1	1	

Table 10: Carcinoma Upper Alveolus and TNM staging

Carcinoma. Upper Alveolus	T ₁	T ₂	T ₃	T ₄
N ₀			1	

Table 11: Carcinoma Floor of the Mouth and TNM staging

Carcinoma floor mouth	T ₁	T ₂	T ₃	T ₄
N ₀			1	1
N ₁			1	

DISCUSSION

Observations in Table 1 show that in our study maximum numbers of cases have occurred in 4th and 5th decades of life [i.e. 31-40 years, 41-50 years]. In the series published by Gopalkrishna *et al*, 5th and 6th decades showed the preponderance.⁵ Also, in the series by Gandagule and Aggarwal,⁶ the maximum incidence was reported in 5th and 6th decades. Table 2 shows the sex distribution of Orofacial cancers in the present study. The study comprised of 27 males and 13 females. Male to female ratio is 2.1:1. In the series published by J.C. Paymaster⁷, it was 2.2:1. In a series published by Gopalkrishna *et al*⁵, it was 2.5:1. Observation Table 2 also shows the distribution of Orofacial cancers at various sites. Our series and the series by J.C. Paymaster⁷ have much similarity in the relative incidence of oral cancers at various sites. Histological examination showed that none of the cases were poorly differentiated squamous cell carcinoma. 29 cases were well differentiated squamous cell carcinomas, 9 were well to moderately differentiated squamous cell carcinomas whereas 2 cases were moderately differentiated squamous cell carcinomas. Patients who came to our hospital with Orofacial malignancies were usually in the intermediate stage of cancers (stages II and III). In our study group, 3 of the cases were in stage I, while in stage II there were 16 cases. 17 of the cases were in stage III and 4 cases were in stage IV. The TNM system, for the classification and staging of cancer devised, and popularized, by the International Union Against Cancer (UICC), was used to classify and stage the lesions in the present series (shown

in tables 5,6,7,8,9,10 and11)⁸ The study has its limitations which include an observational and descriptive study design. Also, the sample size is relatively small. However it gives valuable information regarding the clinical profile of oral cancer patients from the southern Maharashtra region. Further research needs to be done to better understand the epidemiology of oral cancer which may help in designing better management strategies towards the problem.

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