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Clinical Profile of Oral Cancer Patients at Tertiary Care Hospital in Miraj District of Maharashtra: An Observational Study.

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ABSTRACT

Oral cancers have plagued human beings since antiquity. This has been a problem of both developed and developing countries. It is common in the Indian subcontinent and the overall incidence of oral cancers is 34.9 % of all cancers in India.[2] 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 oral cancer patients visiting Government Medical College & Hospital (GMCH) Miraj, a well-known tertiary referral centre in southern Maharashtra. This is a study of 52 patients who had visited GMCH, Miraj for treatment, during the period of July 2008 to October 2010. All 52 patients had biopsy proved carcinomas. Age and sex distribution of the cases was described. In local examination of the lesion, the clinical stage of the tumor 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. Observations show that in our study maximum numbers of cases have occurred in 4th, 5th and 6th decades. The study comprised of 41 males and 11 females. Male to female ratio is 3.7:1. Carcinoma of the cheek was the most common site and most of the patients visiting hospital came in later stages of cancer i.e. stage III and stage IV. Present study gives valuable information regarding the clinical profile of oral cancer patients from the southern Maharashtra region.

Keywords: Carcinoma cheek, TNM staging, Carcinoma tongue.

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INTRODUCTION

Cancer, derived from the Latin word for Crab, is any malignant tumour that adheres to any part that it seizes upon in an obstinate manner i.e. it can invade and destroy adjacent structures and spread to distant sites to cause death [1]. Oral cancers have plagued human beings since antiquity. This has been a problem of both developed and developing countries. It is common in the Indian subcontinent and the overall incidence of oral cancers is 34.9 % of all cancers in India [2]. 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 & Hospital (GMCH), Miraj is a well-known tertiary referral centre in southern Maharashtra where surgical and palliative care is given to cancer patients. Present study describes the clinical profile of oral cancer patients visiting the hospital during the study duration.

METHODS

This is a study of 52 patients who had visited GMCH, Miraj for treatment, during the period of July 2008 to October 2010. As previously mentioned this hospital is a referral centre for patients with all types of malignancies, as in near vicinity radiotherapy is available only in this hospital. 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. Many of the time patients used to come with obvious diagnosis and histopathological slides of their disease from referring physicians. Such slides were reviewed by pathologist of the hospital. In patients whose lesions were not biopsied outside, we had taken wedge or punch biopsy of the lesion. All 52 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 tumor 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, Color Doppler of upper limb were done wherever required.

OBSERVATIONS

Table 1 shows age distribution of patients with cancers from various sites (i. e. cheek tongue, lip, alveolus, hard palate, and floor of the mouth).

Table 1: Age Distribution of Patients with Oral Cancers

Age in Years	No. of Cases	Male	Female
11-20	-	-	-
21-30	4	4	-
31-40	15	12	3
41-50	14	10	4
51-60	14	10	4
61-70	3	3	-
70 & above	2	2	-
Total	**52**	**41**	**11**

Table 2 shows sex distribution of patients with cancers from various sites (i. e. cheek, tongue lip, alveolus, hard palate, and floor of the mouth).

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Table 2: Sex Distribution and the Site of Primary In Patients With Oral Cancers

Site of lesion	No. of Cases	Male	Female
Carcinoma cheek	23	19	4
Carcinoma tongue	17	13	4
Carcinoma lip	5	5	-
Carcinoma lower alveolus	4	3	1
Carcinoma upper alveolus	1	-	1
Carcinoma floor of mouth	1	1	-
Carcinoma hard palate	1	-	1
Total	52	41	11

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

Table 3: Histological Grading

Histological Grading	Cheek	Tongue	Lip	Alveolus		Hard Palate	Floor Of Mouth	Total
				Lower	Upper			
Grade 1 (well differentiated)	12	6	2	1	-	1	-	22
Grade 2 (well to moderately differentiated)	6	7	1	2	-	-	1	17
Grade 3 (Moderately differentiated)	5	4	2	1	1	-	-	13
Grade 4 (poorly differentiated)	-	-	-	-	-	-	-	-
Total	**23**	**17**	**5**	**4**	**1**	**1**	**1**	**52**

Patients coming to this hospital with oral malignancies are usually coming in late stages usually in stage III and IV. Patients with stage II were 7 in number while only two cases were in stage1.

Table 4 : Oral cancers and their clinical stage

Site of Malignancy	Patients come in stage				Total
	I	II	III	IV	
Cheek	-	2	16	5	23
Tongue	-	2	2	13	17
Lip	-	1	1	3	5
Lower alveolus	-	-	3	1	4
Upper alveolus	-	1	-	-	1
Floor of mouth	-	-	-	1	1
Hard palate	-	1	-	-	1
Total	**-**	**7**	**22**	**23**	**52**

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

Table 5: Carcinoma Cheek and T. N. M. staging.

Ca. Cheek	T_1	T_2	T_3	T_4	Total
N_0	-	2	3	-	**5**
N_1	3	5	3	-	**11**
N_{2a}	2	1	2	-	**5**
N_{2b}	-	1	1	-	**2**
N_{3a}	-	-	-	-	**-**
N_{3b}	-	-	-	-	**-**
N_{3c}	-	-	-	-	**-**
Total	**5**	**9**	**9**	-	**23**

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

ca. Lower Alveolus	T_1	T_2	T_3	T_4	TOTAL
N_0	-	-	-	-	-
N_1	1	1	1	-	**3**
N_{2a}	-	-	-	-	-
N_{2b}	-	-	-	1	**1**
N_{3a}	-	-	-	-	-
N_{3b}	-	-	-	-	-
N_{3c}	-	-	-	-	-
Total	**1**	**1**	**1**	**1**	**4**

Table 9: Ca Upper Alveolus and TNM staging

Ca Upper Alveolus	T_2	N_0	M_0

Table 10: Ca Floor of the Mouth and TNM staging

Ca Floor Of Mouth	T_2	N3b	M_0

Table 11 : Ca Hard Palate and TNM staging

Ca Hard palate	T_2	N_0	M_0

DISCUSSION

Observations in table 1 show that in our study maximum numbers of cases have occurred in 4th, 5th and 6th decades [i.e.31-40years, 41-50 years and 51-60 years]. In the series published by Gopalkrishna et al, 5th and 6th decades showed the preponderance [3] Also, in the series by Gandagule and Aggarwal [2], the maximum incidence was reported in 5th and 6th decades. Table 2 shows the sex distribution of oral cancers in the present study. The study comprised of 41 males and 11 females. Male to female ratio is 3.7:1. In the series published by J.C. Paymaster [4], it was 2.2:1. In a series published by Gopalkrishna et al [3], it was 2.5:1. Observation table 2 also shows the distribution of oral cancers at various sites. Our series and the series by J.C. Paymaster [4] 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. 13 cases were moderately differentiated squamous cell carcinomas. 17 were well differentiated as well to moderately differentiated squamous cell carcinomas. Patients who came to our hospital with oral malignancies were usually in the later stage of cancers (stages III and IV). In our study group, none of the cases were in stage I, while in stage II there were 7 cases. Rest of the cases were in stages III and IV. In our series, as table 4 shows, we have more cases in stages III and IV compared to the study by Shah J. P., Candela F. C. Poddar A.K [5]. 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) [6]. 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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