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Original Research Article

Profile of oral cavity neoplastic lesions: two year pilot study at tertiary care centre

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ABSTRACT

Background: In India 53,251 new head and neck cancer cases are diagnosed every year. Benign tumours are more frequently in the oral cavity than oropharynx.
Methods: The prospective study was carried out in the Department of Otolaryngology and Head and Neck Surgery, Dayanand Medical College and Hospital, Ludhiana, over a period of two and half years, comprised of 66 cases of head and neck neoplasia. The demographic, gender profile, clinical presentation, histopathological diagnosis, therapeutic modality undertaken and post op complications of neoplastic lesions of the oral cavity were studied. follow up was done for 6 months. The therapeutic modalities included surgery, radiotherapy and chemotherapy as per the stage of the lesion.
Results: Incidence of oral cancer is 13.6% among head and neck neoplasms over a period of 2 years (2011-2012). The overall male to female ratio was 1:1.25, among benign was 1:1 and among malignant was 1:1.3. Benign oral cavity tumors were managed surgically with wide excision. Out of 7, 4 (44%) malignant oral cavity tumor patient experienced difficulty in swallowing. Three (43%) out of 4 squamous cell carcinoma patients complained of difficulty in speaking, which is commonly seen in post-glossectomy patients. The survival rate for 6 months follows up, was 100%.
Conclusions: Squamous cell carcinoma is the commonest oral cavity neoplasia. At post treatment follow up period of 6 months survival rate of benign neoplasia is better than malignant neoplasia.

Keywords: Carcinoma, Benign, Malignant, Squamous cell, Surgery, Radiotherapy

INTRODUCTION

Cancers of head and neck is the sixth most common cancer worldwide, with an increasing incidence in developing countries, commonest in India, Bier.[1,2] Benign tumours are more frequently in the oral cavity than oropharynx whereas the malignant tumours are more common in the oropharynx accounting for 70% of the squamous cell carcinoma, 25% of lymphoma, 5% minor salivary gland tumours. Oropharyngeal squamous cell carcinoma is present in 10% to 15% of the head and neck neoplasms by Bradley et al.[3]

Tumours of the oral tongue accounts for 35%, floor of mouth 30%, palate 12%, tonsil 10%, retromolar trigone 4% and buccal mucosa 3% of all oral cavity lesions.[3]

METHODS

This prospective study was carried out in the Department of Otolaryngology and Head and Neck Surgery, Dayanand Medical College and Hospital, Ludhiana, over a period of two years (January 2011 to December 2012), comprised of 66 cases of head and neck neoplasia. The demographic, gender profile, clinical presentation,

histopathological diagnosis, therapeutic modality undertaken and post op complications of neoplastic lesions of the oral cavity were studied, follow up was done for 6 months.

RESULTS

Most of the patients were in the age group of 51 to 70 years of age i.e. 5 (56%) cases. Among benign tumors, the youngest patients were 2 years old; the oldest being 60 years of age, whereas among malignant tumors, the youngest patients were of 23 years of age and the oldest of 66 years of age.

Table 1: Age distribution.

Age (years)	Benign tumor (n=2)		Malignant tumor (n=7)		Total (n=9)	
	N	%	N	%	N	%
<10	1	50	0	0	1	11
11-20	0	0	0	0	0	0
21-30	0	0	1	14	1	11
31-40	0	0	1	14	1	11
41-50	0	0	1	14	1	11
51-60	1	50	1	14	2	22
61-70	0	0	3	44	3	34
>70	0	0	0	0	0	0
Total	2	100	7	100	9	100

n=total number of cases.

Table 2: Sex distribution.

Sex	Benign (n=2)		Malignant (n=7)		Total (n=9)	
	N	%	N	%	N	%
Male	1	50	3	43	4	45
Female	1	50	4	57	5	55
Total	2	100	7	100	9	100

n=total number of cases.

The overall male to female ratio was 1:1.25, among benign was 1:1 and among malignant was 1:1.3.

All of the patients with oral cavity neoplasm presented with difficulty in swallowing or breathing. Out of 7 (100%) malignant oral cavity tumors, 3 (43%) had cervical lymphadenopathy.

Out of the total 9 oral cavity neoplasm, 4 (45%) were tongue neoplasms, 4 (44%) palatal neoplasms and 1 (11%) buccal neoplasm. On the histopathological examination, 4 (45%) tongue neoplasms were reported to be squamous cell carcinoma (3 (34%) well differentiated and 1 (11%) moderately differentiated). Out of 4 (44%) palatal neoplasm, 2 (22%) were benign and 2 (22%) were malignant. Benign neoplasms included pleomorphic adenoma and squamous papilloma, whereas malignant neoplasms included peripheral giant cell granuloma and adenoid cystic carcinoma. Only 1 (11%) case of buccal carcinoma was reported. Hence, 4 (45%) of the oral cavity neoplasms belong to squamous cell carcinoma variety.

Table 3: Clinical presentation.

Chief complaints	Benign tumor (n=2)		Malignant tumor (n=7)		Total (n=9)	
	N	%	N	%	N	%
Difficulty in breathing or swallowing	2	100	7	100	9	100
Cervical lymphadenopathy	0	0	3	43	3	33

n=total number of cases.

Table 4: Histopathological diagnosis.

HPE diagnosis		No. of patients	%
Tongue			
Malignant	Squamous cell carcinoma, well differentiated	3	34
	Squamous cell carcinoma, moderately differentiated	1	11
Palate			
Benign	Pleomorphic adenoma	1	11
	Squamous papilloma	1	11
Malignant	Peripheral giant cell granuloma	1	11
	Adenoid cystic carcinoma	1	11
Buccal			
Malignant	Buccal carcinoma	1	11
Total		9	100

n=total number of cases.

Benign oral cavity tumors were managed surgically with wide excision. Out of 4 squamous cell carcinomas tongue cases, 3 (34%) cases were of stage I and were managed by surgical excision with post-operative radiotherapy 2 (23%) and chemoradiotherapy 1 (11%). 1 (11%) case of squamous cell carcinoma was stage III who was given radiotherapy only. Both of the palatal peripheral giant cell granuloma and buccal carcinoma (22%) tumors were excised surgically. The patient with palatal adenoid cystic carcinoma was advised surgical removal, but patient did not comply.

Out of 7, 4 (44%) malignant oral cavity tumor patient experienced difficulty in swallowing. 3 (43%) out of 4 squamous cell carcinoma patients complained of difficulty in speaking, which is commonly seen in post-glossectomy patients.

Table 5: Therapeutic modalities.

Treatment	Benign tumor (n=2)		Malignant tumor (n=7)		Total (n=9)	
	N	%	N	%	N	%
Surgery only	2	100	2	29	4	44
Surgery with post-op RT	0	0	2	29	2	23
Radiotherapy only	0	0	1	14	1	11
RT plus CT	0	0	1	14	1	11
No medical or surgical treatment	0	0	1	14	1	11
Total	2	100	7	100	9	100

n=total number of cases, RT=radiotherapy, CT=chemotherapy.

Table 6: Post-op complications or common complaints.

Complications or complaints	Benign tumor (n=2)		Malignant tumor (n=7)		Total (n=9)	
	N	%	N	%	N	%
Difficulty in swallowing	0	0	4	57	4	44
Difficulty in speaking	0	0	3	43	3	33
Death	0	0	0	0	0	0

n=total number of cases.

Table 7: Survival rate.

Rate	Benign tumor (n=2)		Malignant tumor (n=7)		Total (n=9)	
	N	%	N	%	N	%
Survived	2	100	7	100	9	100
Expired	0	0	0	0	0	0
Total	2	100	7	100	9	100

n=total number of cases.

The survival rate for 6 months follows up was 100%.

DISCUSSION

Most of the patients were in the age group of 51 to 70 years of age i.e. 5 (56%) cases.

Bao et al reported age group of oral squamous papilloma as 51 years.[4] The overall male to female ratio was 1:1.25, among benign was 1:1 and among malignant was 1:1.3. Male to female ratio was 3.26:1 in the study by Tandon et al.[5] All the patients presented with difficulty in swallowing in our study.

Dysphagia and foreign body sensation were the chief complaints in the study by Jayaparkash et al.[6] Tongue squamous cell carcinioma was the predominant subsite in our study. Agarwal et al too documented tongue squamous cell carcinoma as the commonest.[7]

Benign oral cavity tumors were managed surgically with wide excision. Out of 4 squamous cell carcinoma tongue cases, 3 (34%) cases were of stage I and were managed by surgical excision with post-operative radiotherapy in 2 (23%) and chemoradiotherapy in 1 (11%). 1 (11%) case of squamous cell carcinoma was stage III who was given radiotherapy only. Both of the palatal peripheral giant cell granuloma and buccal carcinoma (22%) tumors were excised surgically. The patient with palatal adenoid cystic carcinoma was advised surgical removal, but patient did not comply.

Figure 1: Palatal mass right side.

Figure 2: Intra op buccal mucosa ulceroproliferative mass excision.

Ortholan et al patients received a locoregional treatment with a curative intent (surgery or radiotherapy) and rest palliative treatment.[8] Post therapeutic treatment out of 7, 4 (44%) malignant oral cavity tumor patients experienced difficulty in swallowing. 3 (43%) out of 4 squamous cell carcinoma patients complained of difficulty in speaking, which is commonly seen in post-glossectomy patients. The survival rate for 6 months follows up, was 100%.

CONCLUSION

Squamous cell carcinoma is the commonest oral cavity neoplasia. At post treatment follow up period of 6 months survival rate of benign neoplasia is better than malignant neoplasia.

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