

**Research Article****Clinicopathological Study of Oral Cavity Lesions in a Tertiary Care Hospital**

Authors

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Oral cavity is a common site for development of congenital and acquired lesions as well as localized benign and malignant lesions. Congenital lesions include entities such as dermoid cyst, odontogenic cyst, lingual thyroid. The great majority of acquired localized overgrowths of the oral mucosa are considered to be reactive rather than neoplastic in nature. Aim of this study is to find out the frequency of different histological types of oral cavity lesions reported at our institute along with their clinicopathological correlation. Patients coming in ENT and Dental outpatient departments and wards with definitive oral masses, leucoplakia or ulcers are included in this descriptive study over a period of one and half year at present institute. Total 210 cases of oral lesions diagnosed on scrape cytology and /or histopathology were included. Out of total 210 cases, most of cases were in the 51-60 age group, were males and presented with swelling or ulceroproliferative swelling and site involved was buccal mucosa. Histopathologically, Premalignant and malignant lesions were 108 cases out of 210 and associated with tobacco chewing or addicted to tobacco chewing and smoking or alcohol together. Present study was discussed and compared with other studies done. From the present study, it was observed that majority of the oral cavity lesions are benign in nature; however, malignant lesions are reported in greater frequency. Any mass lesion especially in the oral cavity should be biopsied to rule out malignancy.

Keywords: oral masses, ulceroproliferative swelling, Oral cancer, tobacco chewing.

Introduction

Oral cavity is a common site for development of congenital and acquired lesions as well as localized benign and malignant lesions. Congenital lesions include entities such as dermoid cyst, odontogenic cyst, lingual thyroid. The great majority of acquired localized

overgrowths of the oral mucosa are considered to be reactive rather than neoplastic in nature. Clinically benign tumors or tumor like lesions are slow growing. These include eosinophilic granuloma, fibroma, papilloma, epulis, granular cell tumor, keratoacanthoma, lipoma, schwannoma, verruciform xanthoma, pyogenic

granuloma and odontogenic tumors. They do not recur after complete surgical excision. Oral cancer represents 2-4% of malignancies in the West but accounts for almost 40% of all the cancers in the Indian subcontinent. Over 90% of these tumors are squamous cell carcinoma which arise from oral mucosal lining.

Aims & Objectives

- 1) To find out the frequency of different histological types of oral cavity lesions reported during the study.
- 2) To study clinicopathological characteristics of oral cavity lesions.
- 3) To study association between tobacco or betel nut chewing or smoking and oral malignancies

Material and Methods

This prospective study included patients with definitive oral masses, leucoplakia or ulcers.

Study Period- The cases were referred from ENT and Dental outpatient departments and wards, of a secondary referral hospital in the one and half year period.

Observation and Results

Table 1: Age-wise distribution of oral cavity lesions

Sr No	Age Group (Years)	Number of cases	(% of Group)
1	0-10	7	3.33
2	11-20	19	9.05
3	21-30	29	13.81
4	31-40	29	13.81
5	41-50	32	15.24
6	51-60	53	25.24
7	61-70	31	14.76
8	71-80	9	4.29
9	81-90	1	0.48
	Total	210	100.00

Of the total 210 patients, 53 (25.24 %) were in the 51-60 yrs age group, followed by those in 41-50 yrs age group (15.24%).

Table 2: Sex-wise distribution of oral cavity lesions

Sr No	Sex	No of Cases	%
1	Males	122	58.10
2	Females	88	41.90
Total		210	100%

Of the total 210 patients, most of the patients were male 122(58.10 %)

Study Design- Descriptive study undertaken in the Department of Pathology, Dr SCGMC, Nanded.

Study Population- Total 210 cases of oral lesions diagnosed on scrape cytology and /or histopathology were included.

Inclusion Criteria- All oral cavity samples received at either cytology or histopathology laboratory

Exclusion Criteria

- 1) Patients with dental caries, dental infections and oral injuries
- 2) Patients with major salivary gland lesions.
- 3) Metabolic diseases of oral cavity.

Scrape cytology procedure- For leucoplakia or ulcers, the centre of the lesion was chosen for firm scraping using a wooden spatula

Fixation and staining- Smears are fixed in 95% ethyl alcohol. The H & E staining is the preferred method for microscopic evaluation of cytological smears.

Table 3: Site-wise distribution of oral cavity lesions

Sr .no.	Site	Number of cases	%
1	Tongue	47	22.38
2	Lip	21	10
3	Buccal mucosa	67	31.90
4	Gingiva	30	14.29
5	Retromolar region	6	2.86
6	Palate	12	5.71
7	Floor of mouth	11	5.24
8	Maxilla	8	3.81
9	Mandible	5	2.38
	Total	210	100

Most common site involved in the patients presenting with oral cavity lesions was buccal mucosa 67 (31.90 %) followed by tongue 47 (22.38 %).

Table 4: Clinical Presentation-wise distribution of oral cavity lesions

Sr No	Clinical Presentation	Number of cases	% of Group
1	Swelling	134	63.81
2	Ulcer	25	11.90%
3	Ulceroproliferative Swelling	27	12.86
4	Papule	1	0.48
5	Bleeding	17	8.10
6	White patch	22	10.48
7	Red patch	1	0.48

Most common presentation was swelling in 134 cases (63.81 %) followed ulceroproliferative swelling in 27 cases (12.86 %).

Table 5: Distribution of oral cavity Lesions according to major histopathological categories

Subtypes	Non Neoplastic (% of Group)	Neoplastic (% of Group)			Total (% of Group)
		Benign	Premalignant	Malignant	
Number of Cases	74 (35.24%)	28 (13.33%)	23 (10.95%)	85 (40.48%)	210 (100%)

Histopathologically, malignant cases 85 (40.48 %) were most common followed by non-neoplastic cases 74 (35.24 %).

Table 6: Distribution of Habits related to Premalignant and malignant lesions of Oral Cavity

Habits	Premalignant Lesions (% of Group)	Malignant Lesions (% of Group)
Tobacco Chewing	8 (34.78%)	38 (44.71%)
Smoking	3 (13.04%)	10 (11.76%)
Alcohol	-	1 (1.18%)
Tobacco Chewing + Smoking/Alcohol	4 (17.39%)	12(14.12%)
Smoking +Alcohol	1 (4.35%)	4 (4.71%)
Nil	4 (17.39%)	12 (14.12%)
Total	23 (100%)	85 (100%)

Histopathologically cases diagnosed as premalignant and malignant were addicted most commonly to tobacco chewing 46 cases and in 16 cases addiction to tobacco chewing, smoking and or alcohol found.

Images (benign lesions)



Fig.1 Tongue Fibroma



Fig.5 Leucoplakia



Fig.2 Epulis



Fig.6 Malignant Ulceroproliferative Swelling



Fig.3 Ranula

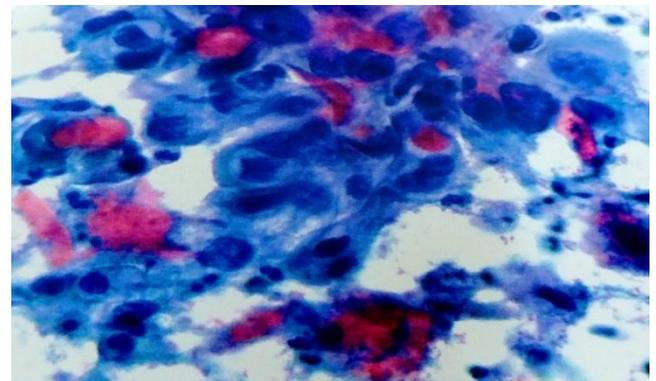


Fig.7 Scrape Cytology Showing cells with moderate atypia



Fig.4 Haemangioma

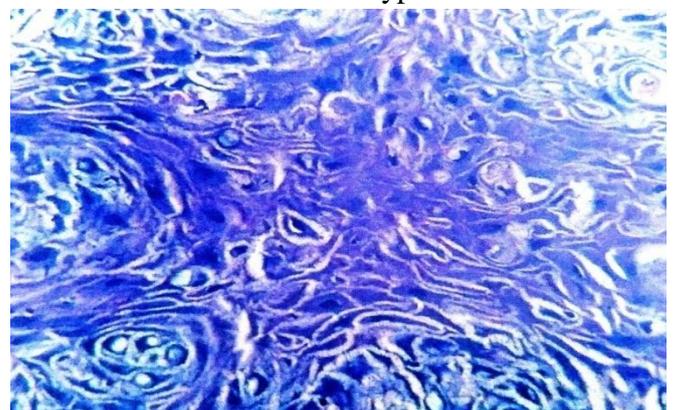


Fig.8 HPE Well Differentiated SCC

Discussion

RESULT OF PRESENT STUDY	OTHER STUDIES HAVING SIMILAR RESULTS
Most oral cavity lesions are found in the age group of 51-60 years	Zaib N et al
Male : Female Ratio of all oral lesions was 1.39:1 with predominance of males over females	Luqman and Al-Shabab and Ali and Sundaram
Most common site of involvement amongst oral cavity lesions is buccal mucosa	Mehta N V et al and Parikh S et al
Malignant oral cavity lesions are most common of all oral cavity lesions followed by non-neoplastic oral cavity lesions	Agrawal R et al, Parikh S et al
Maximum cases of oral cancers had a habit of tobacco chewing	Shiv Shetty B S and Prithal G

Conclusion

Scrape cytology and FNAC are significant as minimally invasive procedures to diagnose oral lesions including oral malignancies at an early stage and to decide the course of management

From the present study, it was observed that majority of the oral cavity lesions are benign in nature; however, malignant lesions are reported in greater frequency. Any mass lesion especially in the oral cavity should be biopsied to rule out malignancy. The origin and nature of the oral cavity lesions cannot be confirmed by clinical examination alone. Hence, it is must to have a histopathological examination to confirm the histogenesis and malignant potential of the oral lesions.

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