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A Study on Histomorphological Spectrum of Oral Lesions

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ABSTRACT:
INTRODUCTION: Oral cancer is one of a major health problem in many parts of the world particularly in the developing countries. Oral cancer is the sixth most common cancer in the world, whereas in India it is one of the most prevalent cancer.[1]
The clinical presentation of these lesions are often nonspecific, subtle, and ever-changing , typically, they require detailed evaluation of patient history, histopathologic studies, and multidisciplinary consultation for definitive diagnosis.[2]
Objectives:
1. Histopathological study of lesions in oral cavity
2. To study the incidence and distribution of oral lesions

Methods: Archieved histopathology slides and respective blocks were studied, evaluated and diagnosed.
Results: Out of 82 cases studied, there were 2 cases of Leukoplakia, 3 cases of Erythroplakia, 10 cases of mucocele, 7 cases of retention cyst, 8 cases of pyogenic granuloma,10 cases of irritational fibroma, 4 cases of dentigerous cyst, 5 cases of Ranula, 7 cases of odontogenic cyst, 6 cases of radicular cyst, 2 cases of carcinoma insitu, 2 cases of squamous papillary dysplasia, 16 cases of squamous cell carcinoma.
Conclusion: The oral mucosa is subjected to various local irritants throughout the life which makes the oral cavity one of the most common sites for various benign, premalignant and malignant lesions.[3]

Keywords: Mucocele, Retention cyst, Pyogenic granuloma, Squamous papillary dysplasia, Squamous cell carcinoma.

INTRODUCTION:

Oral cancer is one of a major health problem in many parts of the world particularly in the developing countries. Oral cancer is the sixth most common cancer in the world, whereas in India it is one of the most prevalent cancer.[1]
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one of the most common sites for various benign, premalignant and malignant lesions.[3]
The oral cavity typically includes lip lining, buccal mucosa, gingiva, anterior two-thirds of the tongue, the floor of the mouth, and the hard palate. The mucosal lining of the oral cavity is a stratified squamous epithelium [4]
Oral cavity lesions are usually asymptomatic and nonspecific. Proper diagnosis of the lesion is the first step for the proper management of patients and histopathology is considered as the gold standard.[1]
Oral lesions can arise from a range of different aetiologies which include infective, idiopathic, inflammatory, reactive and neoplastic changes. [5]
Poor oral hygiene, nutritional inadequacies, and human papillomavirus (HPV) infection have all been indicated as minor risk factors for developing oral cavity carcinoma.[4]
Oral mucosa provides a defensive mechanism against various microbial pathogens,including trauma and carcinogens. It can be affected by a wide variety of soft tissue lesions and conditions.[6]
Development of lesions in the oral cavity is strongly linked with smoking, tobacco chewing and alcohol consumption. [7]
Oral mucosa is constantly subjected to various external and internal stimuli that can lead to various reactive lesions. They are non-neoplastic in nature but clinically these lesions can mimic benign neoplastic lesions.[8]
Whenever a patient presents to the outpatient department with oral lesions, lesions should be biopsied to confirm the diagnosis.[9]

Objectives:
1. Histopathological study of lesions in oral cavity
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Materials & Methods:
A 2 year retroscpective study was conducted from April 2023 To April 2025 on Oral lesion biopsies obtained in the department of Pathology. The oral biopsies received during the study period were fixed in formalin, processed, sections were evaluated and data were analyzed.
Clinical and radiological details were collected from request form submitted to the department of pathology and also from MRD.
Archieved histopathology slides and respective blocks were taken out from department of pathology. Haematoxylin and eosin sections will be studied and evaluated and diagnosed.
Results: out of 82 cases studied, there were 2 cases of Leukoplakia, 3 cases of Erythroplakia, 10 cases of mucocele, 7 cases of retention cyst, 8 cases of pyogenic granuloma,10 cases of irritational fibroma, 4 cases of dentigerous cyst, 5 cases of Ranula, 7 cases of odontogenic cyst, 6 cases of radicular cyst, 2 cases of carcinoma insitu, 2 cases of squamous papillary dysplasia, 16 cases of squamous cell carcinoma.

Table 1: Classification of different types of oral lesions:

Lesion	No of cases obtained(%)
Leukoplakia	02(2%)
Erythroplakia	03(3%)
Mucocele	10(12%)

Retention cyst	07(8%)
Pyogenic granuloma	08(9%)
Irritation fibroma	10(12%)
Dentigerous cyst	04(4%)
Ranula	05(6%)
Odontogenic cyst	07(8%)
Radicular cyst	06(7%)
Carcinoma insitu	02(2%)
Squamous papillary dysplasia	02(2%)
Squamous cell carcinoma	16(19%)

Table 2: Classification of benign, premalignant and malignant lesions:

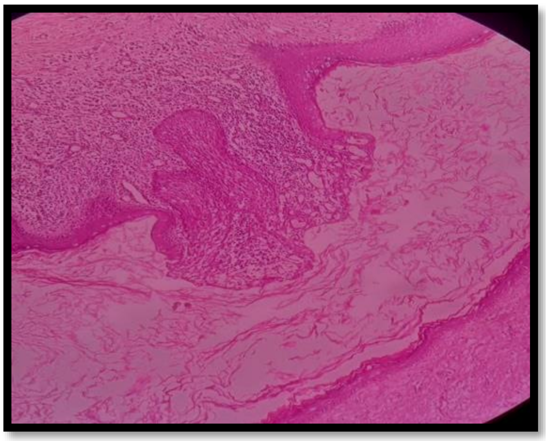
Type of lesion	No of cases(%)
Benign	62(75%)
Pre malignant	04(4%)
Malignant	16(19%)

Table 3: Gender wise distribution of lesions:

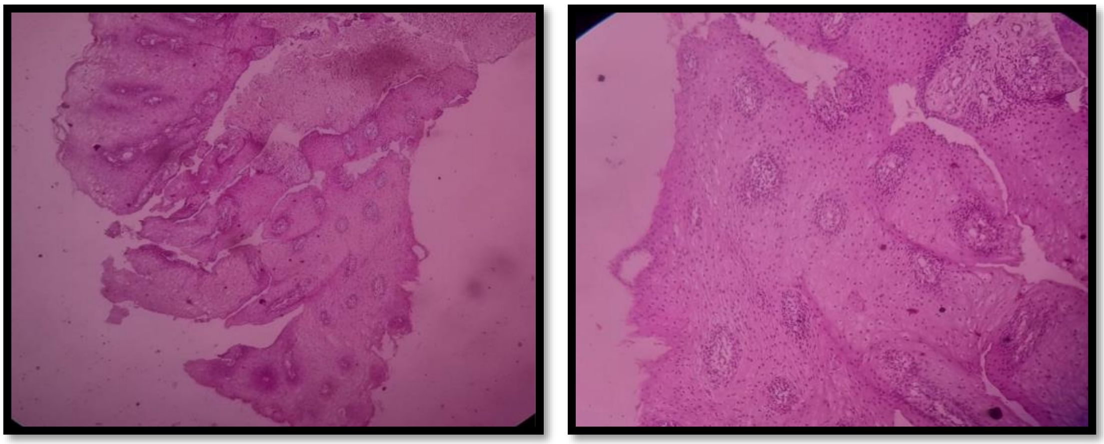
Gender	No of cases(%)
Male	56(68%)
Female	26(31%)

Table 4: Site of lesions:

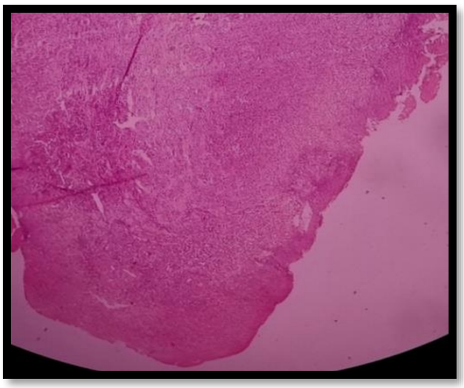
Site	No of cases(%)
Lip	12(14%)
Palate	18(21%)
Tongue	20(24%)
Buccal mucosa	32(39%)



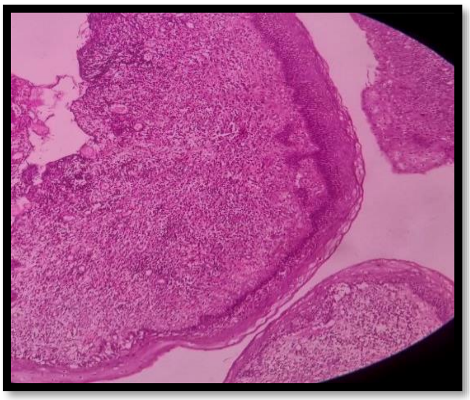
Odontogenic cyst



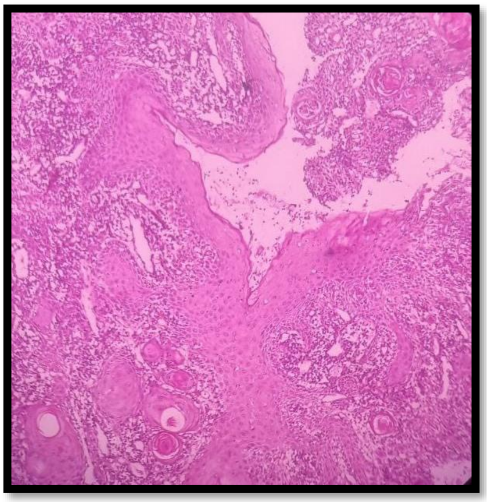
Squamous papillary dysplasia



Retention cyst



Radicular cyst



Squamous cell carcinoma

Discussion:

The oral cavity is an entry point for upper aero-digestive tract that starts at from the lips and ends at the anterior surface of the faucial arch, lined by keratinizing or non keratinizing stratified squamous epithelium with a few minor salivary glands. The oral cavity is at exposure to both inhaled and consumed carcinogens and it is one of the most common site for the origin of malignant neoplasms.[1]

In our study, 82 cases were recovered retrospectively from the department of pathology, ESIC, over a period of 2 years. Most of the cases were benign, i.e, 62 cases with majority of benign cases being mucocele(10) and irritation fibroma(10) constituting about 24% of total cases followed by pyogenic granuloma constituting about 10% of total cases.

Malignant lesions- Squamous cell carcinoma, were second most common type of lesions with a total 16 cases constituting about 20% of total cases with. Least cases were that of premalignant lesions constituting about 4% of total cases with 4 cases.

In our study most of the cases were diagnosed in males with a total of 56 cases constituting about 68% of total cases, 26 cases were females with a percentage of 32% of total cases indicating strong association of tobacco use in male patients.

In this study most common site of involvement of oral lesions was seen in buccal mucosa with a total of 32 cases constituting about 39% of total cases. Second most common site of involvement was tongue with 20 cases constituting about 24% of total cases followed by palate with 18 cases constituting about 18% of total cases and least number of cases were seen on lip with a total of 12 cases constituting about 14% of total cases.

CONCLUSION:

The oral mucosa is subjected to various local irritants throughout the life which makes the oral cavity one of the most common sites for various benign, premalignant and malignant lesions.[3]

Hence whenever a patient presents to the outpatient department with oral lesions, lesions should be biopsied to confirm the diagnosis.[9]

Early diagnosis and early intervention can significantly impact the overall outcome of the disease.

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