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NATURE OF ORAL BIOPSIES;
LIAQUAT UNIVERSITY HOSPITAL HYDERABAD

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ABSTRACT… Biopsy is the removal of a tissue sample from a living body with the objective of providing the pathologist with a representative, viable specimen for histopathologic interpretation and diagnosis. **Objectives:** To find out frequency and nature of oral biopsies reported at liaquat university hospital Hyderabad. **Design:** Descriptive/Cross sectional. **Period:** 1st February 2012 to 31st January 2014 **Setting**: Oral & Maxillofacial Surgery Department, Liaquat University Hospital Hyderabad. **Material & Methods**: A total of 180 patients were reported at OPD and Oral & Maxillofacial Surgery ward of Liaquat University Hospital for oral incisional, excisional and punch biopsy purpose. Study design was descriptive/cross sectional study. All patients were treated both under general anesthesia as well as local anesthesia and sedation. All the biopsies were sent to histopathology department for confirmation of diagnosis. **Results:** 119 patients (66.1%) were males and 61 patients (33.8%) were females with age range from 10-80 years. Malignancy was diagnosed in 80 patients (44.4%) while odontogenic cysts were diagnosed as second common category with 38 patients (21.1%). **Conclusions**: Squamous cell carcinoma was diagnosed as the most common malignant lesion which is rising danger to the society specially as the age advances.

Key words: Biopsy, Incisional, Excisional, Squamous Cell Carcinoma, Diagnosis Malignancy.

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INTRODUCTION

The word, 'biopsy' has originated from the greek words, 'bios'-life and 'opsis'- vision of life[1]. Biopsy is the removal of a tissue sample from a living body with the objective of providing the pathologist with a representative, viable specimen for histopathologic interpretation and diagnosis[2]. The technique allows us to establish the histological characteristics of suspected lesions, their differentiation, extent or spread, and to adopt an adequate treatment strategy[3].

The oral cavity and maxillofacial region is often host to a wide spectrum of pathological lesions of variable nature; neoplastic, cystic, keratotic, inflammatory, reactionary and the list is exhausting[4]. The hallmark features of the oral cavity are the teeth, gingiva, oral Mucosa, tongue and the salivary glands and thus their respective pathologies like odontogenic cysts/tumours and salivary gland disorders are the important lesions reported in various studies published worldwide[5]. An oral biopsy is essential for a definitive diagnosis of the diseases which occur in the oral mucosa. An oral biopsy is not limited to the diagnosis of tumours but it is also of great usefulness for determining the natures of all types of lesions[6,7]. Dental practitioners have an important role in this context because early diagnosis of some oral lesions, especially various malignancies, is only possible by taking biopsy specimens, which are important to improve patient prognosis[8]. This study will contribute to the knowledge of lesions affecting the oral & maxillofacial area in this part of the world.

MATERIAL & METHODS

This study was conducted at Oral & Maxillofacial Surgery Department, Liaquat University Hospital Hyderabad from 1st February 2012 to 31st January 2014. The study design was descriptive/Cross sectional. A total of 180 patients were reported at OPD and Oral & Maxillofacial Surgery ward of Liaquat University Hospital for oral incisional, excisional and punch biopsy purpose. All patients were treated both under general anesthesia as

well as local anesthesia and sedation. All the biopsies were sent to histopathology department for confirmation of diagnosis.

Patient complete data regarding the age, gender, site and histopathological diagnosis was recorded on proforma and analyzed by using SPSS version 17.

RESULTS

180 biopsy samples were sent for histopathological examination. 119(66.1.3%) were males and 61(33.8%) were females (see fig 1). Patients were in age range of 10-80 years. Majority of patients were in 4th and 5th decade of life. Malignancy was diagnosed in 80 patients (44.4%) while odontogenic cysts were diagnosed as second common category with 38 patients (21.1%) followed by inflammatory lesions, reactionary lesions, odontogenic tumors (see Table I).

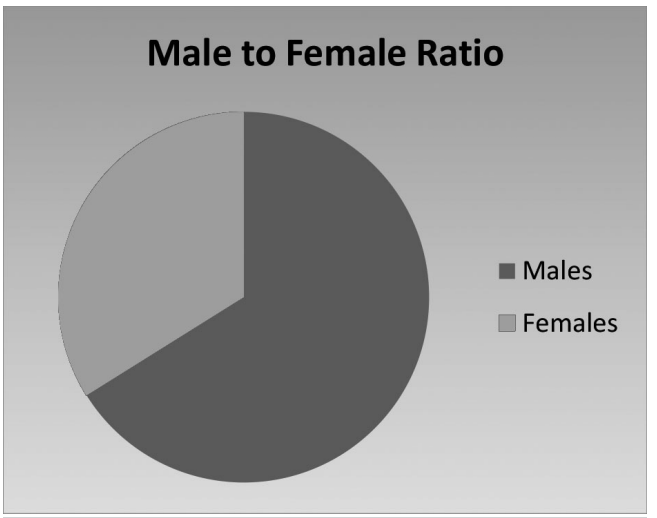

Fig-1. Showing Male to Female Ratio

Type of Lesion	No: of Patients	Males	Females
Malignant Lesions			
SquamousCell Carcinoma	**80** 77	**59** 57	**21** 20
Osteosarcoma	02	02	00
B Cell Lymphoma	01	00	01
Odontogenic Cysts	**38**	**26**	**12**
Radicular	19	13	06
Dentigerous	14	09	05
Keratocyst	05	04	01
Inflammatory Lesions	**20**	**11**	**09**
Osteomyelitis	07	04	03
Non Specific Lesions	13	0	06
Reactionary Lesions	**16**	**08**	**08**
Giant Cell Granuloma	10	05	05
Pyogenic Granuloma	06	03	03
Premalignant Lesions	**14**	**08**	**06**
Leukoplakia	07	04	03
Lichen planus	02	02	00
Submucous fibrosis	05	02	03
Odontogenic Tumors	**09**	**05**	**04**
Ameloblastoma	07	04	03
Myxoma	02	01	01
Salivary Gland Lesions	**03**	**02**	**01**
Pleomorphic Adenoma	02	02	00
Mucoepidermoid Carcinoma	01	00	01
Total	**180**	**119**	**61**

Table-I. Showing Different Categories of Lesions Diagnosed With Biopsy.

DISCUSSION

A biopsy is considered to be the gold standard of diagnostic procedures. This procedure helps in confirming or denying a diagnosis. Planning before performing a biopsy is essential in helping the pathologist in arriving at a proper diagnosis.

In this study malignant lesions were found in highest occurrence 44.4%, and among these lesions there was high incidence of oral squamous cell carcinoma. Oral squamous cell carcinoma (OSCC) is the most common malignant tumor of the head and neck, and its incidence has increased in recent years[9]. This high incidence of oral squamous cell carcinoma in this current study is also supported by few other studies carried out in other cities of Pakistan, India and Taiwan[10,11,12].

Cystic lesions of the jaws can be either odontogenic or non-odontogenic, developmental or inflammatory in origin. In the present study 38 case of the odontogenic cysts have been diagnosed which a radicular, dentigerious and kertocyst in nature[13]. In this study among odontogenic cysts, most common were radicular cysts followed by dentigerous cyst and keratocyst. These findings are similar to international study by koseoglu BG[14] in 2004 which is also supported by another international study Avelar RL[15] in 2009.

Third common category diagnosed was inflammatory lesions with 20 cases. Among them 13 were non specified inflammatory lesions and 7 cases were of osteomyelitis.

Osteomyelitis is defined as an inflammatory condition of the bone that commences as an infection of the medullary cavity, rapidly involving the Haversian systems, and eventually involving the periosteum of the infected areas[16].

Another category diagnosed was reactionary lesions with 16 cases. 10 were giant cell lesion and 6 were pyogenic granuloma. They mostly arise from the oral mucosa with gingiva being their favoured site. Our study shows equal distribution of giant cell lesions between males and females which is in contrast to the study carried Brian L[17] in 2006 out by which shows more females are affected.

Present study shows 14 cases of premalignant lesions. 7 cases of leukoplakia, 5 case of submucous fibrosis and 2 cases of lichen planus. Oral leukoplakia is defined as a predominantly white lesion of the oral mucosa that cannot be characterized as any other definable lesion.

Odontogenic tumours comprise a large heterogeneous group of lesions originating from odontogenic epithelium and or ectomesenchyme and its vestiges.Odontogenic tumours include entities of hamartomatous nature (for example, odontoma), benign neoplasms, some of which are aggressive (for example, ameloblastoma and myxoma) and malignant neoplasms capable of metastasis[18]. Our study shows 7 cases of ameloblastoma which resembles the study carried out by Verkhede[19] in 2010 in India.

Salivary glands, both major and minor are an important component of the oro-facial region and they also present a range of pathologies that may arise in the glandular structure. Our study shows only 3 cases of salivary neoplasms which is few in number, but pleomorphic adenoma remains the most common entity in worldwide literature[20].

CONCLUSIONS

In our study Squamous cell carcinoma was diagnosed as the most common malignant lesion. Squamous cell carcinoma accounts for 90% of all oral cancers. It may affect any anatomical site in the mouth, but most commonly the tongue and the floor of the mouth. This high rate of occurrence of squamous cell carcinoma is a rising danger to the society especially as the age advances.

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