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Research Article

**A STUDY ON SPECTRUM OF ORAL MUCOCELES:  
MANAGEMENT IN PAKISTAN**Dr Hassaan Javed Kamal<sup>1</sup>, Dr Javeria Rafiq<sup>1</sup>, Dr Mahnoor Anser<sup>1</sup><sup>1</sup>House Officer at Punjab Dental Hospital, Lahore**Abstract:**

**Introduction:** Oral mucocoele an accessory salivary gland lesion is a benign neoplasm and the common lesion of the oral cavity. **Objectives of the study:** The main objective of the study is to find the spectrum of oral mucocoeles among local population of Pakistan. **Methodology of the study:** This cross sectional study was conducted in Punjab Dental Hospital, Lahore during January 2019 to July 2019. The permission to undertake this study was obtained from the Institutional Ethics Committee. The descriptive data of these patients were evaluated and compared with previously documented data in the literature. The study variables included age, gender, type, site, color, etiology, symptoms and dimension of the lesion. **Results:** In this study, we observed that the number of patients affected with OMs were between 15 and 49 years with the mean age of 21.20 years. The OMs were highly prevalent in the age group of 15-19 years (34.48%) followed by 20-24 years (31.04%). The males (51.72%) and females (48.28%) were more or less equally affected, with a ratio of 1.07:1. Out of total 58 patients, 49 (84.48%) patients had extravasation type and were highly prevalent in the age group of 15-24 years, whereas 9 (15.52%) patients had retention type of mucocoele and were prevalent in the age group of 30-39 years. **Conclusion:** It is concluded that Oral mucocoeles rarely cause significant problems. Discomfort, interference with speech, mastication, swallowing and external swelling may occur depending on the size and location of mucocoeles.

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**INTRODUCTION:**

Oral mucocele an accessory salivary gland lesion is a benign neoplasm and the common lesion of the oral cavity. Oral mucocele is characterized by one or more soft, smooth, painless translucent, spherical fluctuant nodules usually asymptomatic. These lesions could be present in other parts of the body but are more common in the mouth and the commonest site is the lower lip then followed by the cheek and floor of the mouth. Diagnosis of this lesion can be done by clinical findings alone [1]. Oral mucocele occur due to trauma or obstruction of the glands. They are basically pseudo cysts formed as a result of pooled mucous accumulation. The prevalence of oral mucocele was 2.5 in 1000 population of America, and in Sweden 0.11%, Brazil 0.08% respectively. These represent 17th commonest lesion in the oral cavity [2].

Oral mucoceles (OMs) are benign soft tissue masses and are clinically characterized by single or multiple, painless, soft, smooth, spherical, translucent, fluctuant nodule, which is usually asymptomatic. Mucoceles (muco - mucus and coele - cavity), by definition, are cavities filled with mucus. It is the most common minor (accessory) salivary gland lesion affecting the general population. Minor salivary glands are found in most parts of the oral cavity except the gingiva [3]. The prevalence of mucocele is 2.5 lesions per 1000 population in America, 0.11% in Sweden and 0.08% in Brazil. They represent the 17<sup>th</sup> most common lesion of oral cavity.[4] Oral mucoceles are usually dome-shaped enlargement with intact epithelium. They are classified as extravasation or retention type [4].

Many patients report the periodic discharge of viscous fluid from the lesion. The *retention type* is less common than extravasation, usually affects older individuals and is seen frequently on upper lip, hard palate, floor of mouth and maxillary sinus [5]. In mucous retention phenomena, mucus may be retained in the duct and/or acini as a result of duct obstruction by sialolith or strictures. The ductal narrowing can occur due to frequent mouth washing with hydrogen peroxide, deodorant mouthwashes,

tartar-control toothpastes or anti-plaque solutions, which are possible causes of irritation [6].

**Objectives of the study**

The main objective of the study is to find the spectrum of oral mucoceles among local population of Pakistan.

**METHODOLOGY OF THE STUDY:**

This cross-sectional study was conducted in Punjab Dental Hospital, Lahore during January 2019 to July 2019. The permission to undertake this study was obtained from the Institutional Ethics Committee. The descriptive data of these patients were evaluated and compared with previously documented data in the literature. The study variables included age, gender, type, site, color, etiology, symptoms and dimension of the lesion.

**Statistical analysis**

The results were analyzed by using Statistical Package for the Social Sciences (SPSS) version 13.0 and Chi-square test.

**RESULTS:**

In this study, we observed that the number of patients affected with OMs were between 15 and 49 years with the mean age of 21.20 years. The OMs were highly prevalent in the age group of 15-19 years (34.48%) followed by 20-24 years (31.04%). The males (51.72%) and females(48.28%) were more or less equally affected, with a ratio of 1.07:1. Out of total 58 patients, 49 (84.48%) patients had extravasation type and were highly prevalent in the age group of 15-24 years, whereas 9 (15.52%) patients had retention type of mucocele and were prevalent in the age group of 30-39 years. In total 49 cases of extravasation type, 25 were males and 24 were female. The sites affected with OMs were lower lip (36.20%), buccal mucosa (10.34%), dorsal surface of tongue (15.52%), ventral surface of tongue (25.86%), floor of mouth (5.18%), upper lip (5.18%) and palate (1.72%). The lower lip was the most commonly affected site by extravasation type, and floor of mouth was the most commonly affected site by retention type of OM

Table 1: Correlation of affected site and type of mucocele

Site	Extravasation	Retention	%
Lower lip	21	0	36.21
Buccal mucosa	5	2	12.07
Dorsal surface of tongue	9	0	15.52
Ventral surface of tongue	13	1	24.14
Floor of mouth	0	3	5.17
Upper lip	1	2	5.17
Palate	0	1	01.72

**DISCUSSION:**

Oral mucocele occurs due to the saliva pooling from the obstructed or minor salivary gland duct. It has a rapid onset, fluctuating and self-limiting. Most of the oral mucoceles are either lacking the epithelial lining or have the granulation tissue. Mucoceles are either single or multiple and they rupture and leave painful erosions which heal in few days. Clinically oral mucoceles are either superficial mucoceles which are present under mucous membrane or classical mucoceles which are present in upper sub mucosa [7]. These are either vesicles with fluid filled cavities which are present in superficial layer of the mucosa or nodule which are present deep in the connective tissue. The bluish swelling are seen in the superficial layer and the normal appearing mucosa have the appearance of the deeper layered lesions [8].

Oral mucoceles are believed to affect patients of all ages, with the highest incidence in the second decade of life. Teenagers and children are most commonly affected by mucoceles. Menta *et al.* [9] Yamasoba *et al.* and Oliveira *et al.* reported that more than 65% of their patients with OMs were less than 20 years of age. Our findings simulated these findings. However, this always may not be true as the asymptomatic nature of the lesion may delay the patients in seeking treatment. Oral mucoceles are said to arise equally in both the sexes [10].

**CONCLUSION:**

It is concluded that Oral mucoceles rarely cause significant problems. Discomfort, interference with speech, mastication, swallowing and external swelling may occur depending on the size and location of mucoceles.

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