

Surgical Management of Mucocele in Buccal Mucosa

G. Lavanya, Jeevanandan Ganesh, E. M. G. Subramanian

Department of Pediatric and Preventive Dentistry, Saveetha Dental College, Chennai, Tamil Nadu, India

Abstract

Mucocele is a salivary gland lesion that occurs due to extravasation of the mucus into the fibrous connective tissue leading to a cyst-like cavity. The wall of the cavity is formed by compressed bundles of collagen fibrils and is filled with mucin. We report a case of mucocele in the right buccal mucosa due to unknown origin.

Key words: Buccal mucosa, mucocele, salivary gland

INTRODUCTION

Mucocele is a common lesion of the oral mucosa that results from the alteration of minor salivary glands due to mucous accumulation.^[1] It is usually associated with the history of trauma that leads to severance of the salivary gland duct. Diagnosing is principally clinical whereas the management of mucocele is a challenging task.^[2] Treatment options of mucocele include marsupialization, surgical excision, dissection, laser ablation, cryosurgery, steroid injection, and irradiation.^[3] This study reports a case of an unusual-sized mucocele on the right buccal mucosa treated with surgical excision.

CASE REPORT

In April 2016, a 6-year, 2-month-old female child was referred to the Department of Pediatric and Preventive Dentistry, Saveetha Dental College, Chennai, India. She presented with the chief complaint of swelling in her right buccal mucosa for the past 1 month. Her medical history appeared noncontributory.

Clinical evaluation

Intraoral examination revealed a nodule of approximately 1.5 cm in diameter covered by a normal mucosa [Figure 1]. The swelling was small initially which gradually increased in size for the past 1 year. On palpation, the lesion was soft and painless.

The laboratory investigations such as hemoglobin, total leukocyte count, and differential leukocyte count were

conducted and the values were found to be within the normal limits.

The differential diagnosis was large mucocele, pleomorphic adenoma and lipoma.

Treatment plan

A vertical incision was given followed by a gentle dissection of the lesion. Resorbable sutures were placed.

Histopathological evaluation

The resected tissue was sent for histopathological evaluation [Figure 2]. Microscopic examination revealed that the section showed areas of mucin pooling surrounded by compressed connective tissue stroma. The connective tissue was composed of endothelial cell proliferation, chronic inflammatory cell infiltrate with moderate vascularity and hemorrhage. Mucous salivary gland acinar and ductal elements were evident. The overlying epithelium is parakeratinized, stratified squamous epithelium of variable thickness.

The histopathological analysis confirmed the diagnosis of mucocele of right buccal mucosa [Figure 3]. After 1 month follow-up, there was a total healing without recurrence [Figures 4 and 5].

Address for correspondence: Dr. G. Lavanya,
Department of Pediatric and Preventive Dentistry, Saveetha Dental College,
Chennai, Tamil Nadu, India.
E-Mail: glaavuu@gmail.com

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

How to cite this article: Lavanya G, Ganesh J, Subramanian E. Surgical management of mucocele in buccal mucosa. *Int J Pedod Rehabil* 2016;1:26-8.



Figure 1: A dome-shaped swelling on the right buccal mucosa.

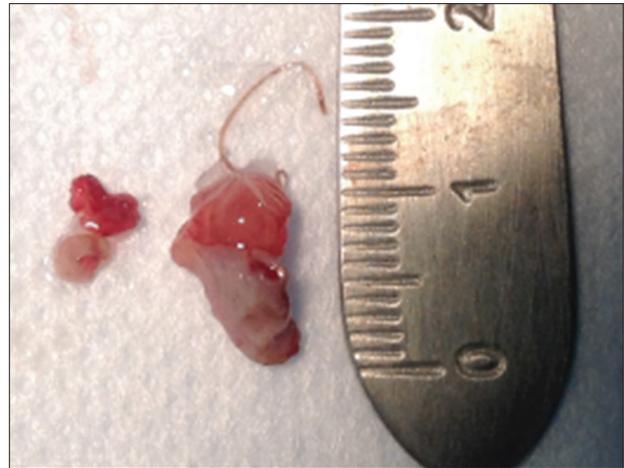


Figure 2: Excised tissue measuring about 1 cm in size.



Figure 3: Histopathological examination.



Figure 4: Review on the 3rd day after excision.

DISCUSSION

Oral mucoceles are common lesions of oral mucosa, very often arising from the rupture of a minor salivary gland duct with subsequent extravasation of the mucus into the surrounding tissue.^[2] Two types of mucocele can appear as extravasation and retention type. Extravasation mucocele results from a broken salivary gland duct and the subsequent spillage of the mucin into the soft tissues around the gland. Retention mucocele appears due to a decrease or the absence of glandular secretion produced by blockage of the salivary gland duct.^[3] Clinically, there is no difference between the retention and the extravasation type. It is the 15th most common oral mucosal lesion with the prevalence of approximately 2.4 cases per 1000 people.

Superficial mucocele is located under the mucous membrane, and the classical mucocele is seen under the upper submucosa.^[4]

Mucoceles have no age predilection, but many occur in children and young adults due to more chances of trauma. The lower lip is reported to be the most common site as the maxillary canine impinges on it. Various works of literature on the mucocele reveal that it is equally seen in men and women

whereas other studies reported that mucocele has a slight female predilection of about 1.3:1.^[5]

The literature reveals that most of the patients give a history of spontaneous development (71.4%) followed by lip biting (25.7%) and trauma (2.9%).^[5]

The diagnosis of mucocele is principally based on the clinical examination. It usually presents as a bluish, soft, transparent cystic swelling which frequently resolves spontaneously. The lesion can be excised completely or can be treated with marsupialization. Other procedures involve cryosurgery, steroid treatment. Recent advances include excision of the mucocele using high-intensity diode lasers. Laser ablation can be performed using CO₂, Er, and Cr: YSGG lasers. Advantages of using lasers for excision include reduced surgical time, blood free and are well accepted by the patients, no need for suture placement, reduced postsurgical pain and discomfort, and minimal scarring. Large lesions are best treated with an unroofing procedure. Large lesions may be marsupialized to prevent significant loss of tissue or to decrease the risk of significantly traumatizing the labial branch of the mental nerve.



Figure 5: Review after 1 month.

The excised tissue should always be sent for the pathological investigation to rule out the salivary gland tumors.

CONCLUSION

We report a case of extravasation type of mucocele located in the right buccal mucosa with no history of trauma or any parafunctional habit. The management of mucocele becomes

challenging because of the high possibility of recurrence. Surgical excision with dissection of the surrounding and contributing minor salivary gland can lead to clinical success without recurrence.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Ata-Ali J, Carrillo C, Bonet C, Balaguer J, Penarrocha M. Oral mucocele: Review of the literature. *J Clin Exp Dent* 2010;2:e18-21.
2. Chi AC, Lambert PR 3rd, Richardson MS, Neville BW. Oral mucoceles: A clinicopathologic review of 1,824 cases, including unusual variants. *J Oral Maxillofac Surg* 2011;69:1086-93.
3. Boneu-Bonet F, Vidal-Homs E, Maizcurrana-Tornil A, González-Lagunas J. Submaxillary gland mucocele: Presentation of a case. *Med Oral Patol Oral Cir Bucal* 2005;10:180-4.
4. Rao PK, Hegde D, Shetty SR, Chatra L, Shenai P. Oral Mucocele – Diagnosis and management. *J Dent Med Med Sci* 2012;2:26-30.
5. Yamasoba T, Tayama N, Syoji M, Fukuta M. Clinicostatistical study of lower lip mucoceles. *Head Neck* 1990;12:316-20.