

Mucocele: A Case Report with 24 Months of Follow-Up

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Abstract

Mucocele is the most common lesion of the oral mucosa, which results from the accumulation of mucous secretion due to trauma and lip biting habits or alteration of minor salivary glands. Mostly, there are two types based on histological features as follows: extravasation and retention. Diagnosis is mostly based on clinical findings. The most common location of the extravasation mucocele is the lower lip. Mucoceles most probably affect young patients, but can affect all the age groups. The treatment of choice is surgical excision of the mucocele.

Keywords: Excision, extravasation, mucocele, trauma

INTRODUCTION

The term mucocele is derived from a Latin word, mucus and cocele means cavity. It is accumulation of mucus within minor salivary glands resulting in benign cystic lesion.^[1] The most common etiological factor for mucocele may be of traumatic origin. The most common site of occurrence of mucocele is the lower lip, followed by the ventral part of tongue, vestibule, and buccal mucosa in children.^[2] They are rarely seen on the upper lip, retromolar pad, or palate. They may occur at any age, but are seen most frequently in the second and third decades of life. These lesions have no sex predilection and occur more frequently in children, adolescents, and young adults.^[3] Two types of mucocele can appear in the oral cavity, namely, extravasation and retention type. In children, extravasation mucoceles are common and retention mucoceles are very rarely found.^[4] The lower lip is the most frequent site of a mucocele as it is the most probable site of trauma. A study of 312 patients showed 230 lesions on the lower lip (73.7%) with the tongue as the second most common site (15.4%).^[5] Mucoceles are usually asymptomatic, but sometimes can cause discomfort by interfering with speech, chewing, or swallowing. Treatment options include surgical excision, marsupialization, micromarsupialization, cryosurgery, laser vaporization, and laser excision.^[6,7]

Mucocele can arise within a few days after minor trauma, but then plateau in size. They can persist unchanged for months

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unless treated. The diameter may range from a few millimeters to a few centimeters. If left without intervention, an episodic decrease and increase in size may be observed, based on rupture and subsequent mucin production.

Our case report aimed to explain the history, clinical features, and surgical removal of mucocele using a simple surgical technique, which helps enhance the knowledge of the general dental practitioner.

CASE REPORT

A 5-year-old girl reported with the chief complaint of painless swelling on the inner aspect of the lower lip for 3 months [Figure 1]. Swelling was small initially and then was increasing gradually to attain the present size. There was no significant medical history. On intraoral examination, a round, solitary, fluctuant swelling was seen on the inner aspect of the lower lip at the right central incisor region. Swelling was 2–3 mm below the vermilion border of the lower lip and extending inferiorly toward the lingual vestibule, measuring approximately 4 mm × 3 mm × 2.5 mm. Color of the swelling was the same as that of the adjacent mucosa. On examination of the lesion, it was soft in consistency, fluctuant, and palpable with no increase in temperature and oval in shape. No other oral anomalies

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Figure 1: Preoperative photograph with the lesion on the lower lip.



Figure 2: Tissue being separated after local anesthesia.



Figure 3: Excised tissue.



Figure 4: Lesion was sutured after tissue excision.

were detected. The patient had a positive history of trauma to the lower lip 4 months back. There was no difficulty in speaking or chewing. Although the lesion may regress on its own, it may continue to persist. The laboratory investigations such as hemoglobin, total lymphocyte count, and differential leukocyte count were conducted, and the values were found to be normal. The differential diagnoses were oral ranula, oral lymphangioma, oral hemangioma, and minor aphthous ulcers. The final diagnosis was formulated as a mucocele on the basis of the history of trauma, site, and clinical features.

After local anesthesia, superficial incision was placed over the lesion involving the superficial layers. Tissue was then separated on either side [Figure 2] and the lesion was excised [Figure 3]. Minor salivary glands around the lesion were also excised to prevent recurrence. The tissues were sutured using 4-0 silk suture [Figure 4]. The excised tissue was submitted to the pathological investigations which confirmed the diagnosis and ruled out the minor salivary gland tumors. The patient was recalled after 1 week for suture removal [Figure 5] and was regularly reviewed at 3-month interval for more than 24 months [Figure 6] and no recurrence was noted.

DISCUSSION

The incidence of mucoceles in the general population is 0.4%–0.9%.^[8] Mucoceles have no age predilection, but mainly occur in the children and young adults due to more chances of trauma.^[9] Mucoceles may be located either as a fluid-filled vesicle or blister in the superficial mucosa or as a fluctuant nodule deep within the connective tissue. Spontaneous drainage of the inspissated mucin especially in superficial lesions followed by subsequent recurrence may occur. The surface of long-standing lesions may show fibrosis.^[3] Histologically, mucoceles are of two types, mucous extravasation and mucous retention phenomena, depending on the presence of epithelial lining. In children, the prevalence of mucous retention phenomena is low due to inability of ductal structure to contain an exaggerated accumulation of secretion.^[10,11] Where as mucous extravasation is common in children because extravasated saliva is first surrounded by inflammatory cell followed by granulation tissue composed mainly of fibroblast due to absence of epithelial lining. This phenomenon is categorized as a pseudocyst or false cyst.^[12]



Figure 5: Tissue healing after 1 week.

Palpation can be helpful for a correct differential diagnosis. Lipomas and tumors of minor salivary glands present no fluctuation, whereas cysts, mucoceles, abscess, and hemangiomas show fluctuation.^[13] Conventional treatment is commonly surgical extirpation of the surrounding mucosa and glandular tissue down to the muscle layer. With a simple incision of the mucocele, the content would drain out, but the lesion would reappear as soon as the wound heals.^[14] Final diagnosis is made on the basis of history of trauma, including habit of lip biting, location, clinical features, and histopathological confirmation.

CONCLUSION

Mucoceles are one of the most common soft tissue lesions of the oral cavity which cause distress and discomfort to the patient. Out of many advanced treatment modalities, simple surgical excision with care is the treatment of choice that can relieve the patient fear and anxiety.

There is no need for treatment if superficial extravasation mucoceles resolve spontaneously. Small mucoceles can be removed completely with the marginal glandular tissue before suture. In the case of larger mucoceles, marsupialization would avoid damage to vital structures. Clinically, there is no difference between both types of mucocele and are therefore treated in the same manner.^[7] Although mucoceles resolve on its own, surgical intervention was deemed necessary for this case because the patient developed habit of lip biting after the development of mucocele.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published



Figure 6: Site of the lesion during follow-up.

and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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