

# Mucocele in Pediatric Patient:-A Case Report

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## Abstract

Mucocele (Mucus Extravasation Phenomenon; Mucus Escape Reaction) is a common lesion of the oral mucosa that results from rupture of a salivary gland duct and spillage of mucin into surrounding soft tissues. Trauma is the main cause for the development of the mucocele in children. It is not true cyst because of the lack of an epithelial lining. Mucocele typically appears dome shaped mucosal swelling. Mucoceles are removed by surgical procedure. The most common site for the mucocele is the lower lip. They are most common in children and young adults but also include infants and older adults. This article reports a case of mucocele in child that has been surgically removed and there is no recurrence.

**Keywords:** Mucocele, Child, Extravasation, Salivary Gland, Surgical

## Introduction

Mucocele (Mucus Extravasation Phenomenon; Mucus Escape Reaction) is a common lesion of the oral mucosa that results from rupture of a salivary gland duct and spillage of mucin into surrounding soft tissues. The etiological factor for the developing of the mucocele in children is trauma but many cases report no history of trauma. The mucocele is not a true cyst because it lacks an epithelial lining. According to the literature mainly two types of mucocele are exist; retention type and extravasation type. It typically appears as dome shaped mucosal swelling which may vary from 1 or 2 mm to several centimetres in size. They are more common in children and young adults but it also occurs in infants and older adults. The spillage of mucin below the mucosal surface often gives a bluish translucent hue to the swelling in color. The lesion characteristically is fluctuating, but some mucoceles feel firmer at palpation. The lower lips are the most common site for the mucocele and it has usually found lateral to the midline. The less common site includes the floor of mouth, the anterior ventral tongue, the buccal mucosa, palate and the retromolar pad.

The superficial mucocele presents as single or multiple tense vesicles that measure 1- 4 mm in diameter. The lesion often bursts, leaving shallow, painful ulcers that heal within a few days. On microscopic examination the mucocele shows an area of spilled mucin surrounded by granulation tissue response. The inflammation usually includes numerous foamy histiocytes (macrophages). Some mucoceles are short-lived lesions that rupture and heal by themselves.

Many lesions are chronic in nature that required conventional treatment that is commonly surgical excision of the surrounding mucosa and glandular tissue down to the muscle layer.

## Case Reports

A 10-year-old girl reported with the chief complaint of painless swelling on the inner surface of the lower lip since 2 months. There was no significant medical history. On intraoral examination, a round, solitary, fluctuant swelling was seen on the inner surface of the lower lip at the left central incisor region. Swelling was 2-3 mm under the vermilion border of the lower lip. Patient had a history of lip biting habit and has no difficulty in speaking or chewing.

The lesion was diagnosed as a mucocele based on the clinical features and history of lip biting habit. It was treated under local anesthesia using scalpel by placing an incision circumferentially [Figure 1 a, b & c]. Lesion was respected from the base and sent for histological analysis. Intermittent sutures were placed [Figure 2a, b & c], and suture removal was done after 1 week. Histopathological report confirmed the diagnosis as mucocele. On 6-month follow-up, there was no history of recurrence of the lesion.

**Figure 1****(a) Pre-operative Mucocoele****(b) During Surgery****(c) Armamentarium for Procedure****Figure 2****(a) Interrupted suture given****(b) Suture removal after one week****(c) Follow up after 6 months**

## Discussion

The incidence of mucocoeles in the general population is 0.4–0.9%. There is no gender predilection the most common etiological factor for mucocoele may be of traumatic origin. The most common site of occurrence of the mucocoele is the lower lip, followed by the ventral part of tongue, vestibule and buccal mucosa in children. Clinically they are painless, asymptomatic swelling but can produce discomfort with speech, chewing and swallowing Lip has adipose, connective tissue, blood vessels, nerves and salivary glands, and hence, pathology of any of these tissues can cause swelling on the lips. Conventional surgical removal is the most common method used in treatment of the mucocoele. Elliptical incision is the most common method used for the treatment procedure. It helps to decrease the extent of mucosal tissue loss, decreases the frequency of formation of large fibrous scars which could be responsible for recurrence. To reduce the possibility of recurrence, lesion should be removed down to the muscle layer, all the surrounding glandular acini must be removed.

## Conclusion

Mucocoeles can develop from any population. They are painless, asymptomatic swelling but can produce discomfort by interfering with speech; chewing or even swallowing. The dentist should help patients prevent mucocoeles by diagnosis and education and advise them to receive the proper treatment for their oral health and comfort. Trauma is the most common

etiological factor for the development of the mucocele and the most frequent location is the mucosa of the lower lip. Simple surgical excision is the treatment of choice, and when done with care, is the best treatment alternative. Prevention for mucocele, a patient should try not to bite his/her lip and preventive from traumatic injury.

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