

## Management of Oral Mucocele in Lower Lip: A Case Report

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### Abstract

The mucocele is one of the common benign salivary gland disorders that occur in the oral cavity due to mucous accumulation and results in alteration of minor salivary glands. Lower lip is the most common site of the extravasation mucocele and is caused due to trauma or a habit of lip biting, while retention mucoceles can be found at any other site. Mucoceles most probably affect young patients but can affect all the age groups. Diagnosis is mostly based on clinical findings. Mucocele may have a soft consistency, bluish, and transparent cystic swelling. The treatment of choice is surgical removal.

**Keywords:** Lower lip swelling, Mucocele, mucus retention cyst, Minor Salivary glands, excision, mucus extravasation cyst

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### INTRODUCTION

Mucocele is a mucus-filled cyst that may appear in the oral cavity, appendix, gall bladder, paranasal sinuses, or lacrimal sac. Mucocele is seventeenth most common salivary gland lesion in the oral cavity [1, 2]. The term mucocele is derived from the Latin word “Mouco” meaning mucus and “Coele” meaning cavity. The incidence is high, in the order of 2.5 lesions per 1000 individuals [3]. There are two types of mucocele in oral cavity, extravasation and retention type. In children, extravasation mucoceles are common and retention type of mucoceles is very rarely found [4]. Extravasation mucocele results from leaking of fluid from the damaged salivary gland ducts and acini into the surrounding soft tissues and is seen in minor salivary glands [5, 6]. These extravasation mucoceles undergo three evolutionary phases. In the first phase, mucus spills diffusely from the excretory duct into the connective tissues. In resorption phase, because of foreign body reaction, formation of granuloma occurs. In the final phase, there is formation of pseudocapsule around the mucosa [7]. Retention type is due to the blockage of salivary gland duct, seen commonly in major salivary gland ducts [8]. Mucoceles present as bluish, soft, transparent cystic swelling that frequently resolve spontaneously [9, 10].

### Etiopathogenesis

- Trauma
- Obstruction of salivary gland duct
- Habit of lip biting and tongue thrusting are aggravating factors.

Case report A 5 years old female patient had reported to the Department of Pedodontics & Preventive Dentistry, KDC, Meerut, with the chief complaint of swelling in the left side of the lower lip for the past one month. Initially it was a small swelling in the lower lip, which then gradually increased to the present size. She gave history of lip biting habit. On intraoral examination Single, raised, dome shaped vesicle present of size around 10 x 7 mm on the left side of the lower lip with no difficulty in chewing. The swelling was reddish blue in colour.

**Investigations:** Routine hematological examinations including bleeding and clotting time were found to be normal. The differential diagnosis consisted of Mucocele, Lipoma, Fibroma Salivary Gland Neoplasm, oral hemangioma and oral lymphangioma. Based on history and clinical examination a provisional diagnosis of mucocele was made.

## Treatment

This case of mucocele was treated by surgical excision method using scalpel blade. The patient was explained about the procedure and informed consent was obtained. Local infiltrative anesthesia was applied around the lesion. The lip was then everted with digital pressure to increase the lesion's prominence. Excisional biopsy was done, at left side of the lower lip, tissue of size 10 x 8 mm excised, white in colour, soft in consistency and send for the histo-pathological examination. Post-operative instructions were given and analgesics were prescribed. Patient was recalled after 1 week with no recurrence was seen after a follow up at 1 month, 3 months and 12 months.



Fig-1:Pre-Operative



Fig-2: Surgical removal of mucocele

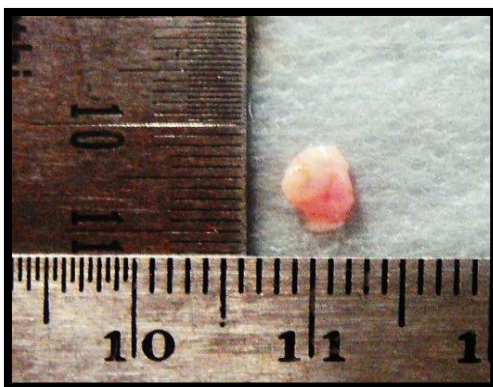


Fig-3: Mucocele excised



Fig-4: Post-operative view after 4 months

## DISCUSSION

Mucoceles appear as discrete, small, translucent, soft, painless swelling of the mucosa ranging from normal pink to deep blue in color [2, 5]. The incidence of mucoceles in the general population is 0.4% to 0.8% with scant differences between males and females. Lower lip is considered to be the most frequently affected location (40% to 80% of all cases), followed by the cheek mucosa and floor of the mouth [3, 11]. Less common sites for the occurrence are buccal mucosa, anterior lateral tongue, floor of mouth. In our case the site of the lesion is lower lip. The patient may relate a history of trauma or a habit of lip biting. These vesicles rupture spontaneously and leave ulcerated surface that heals within a few days. Their deep blue color results from tissue cyanosis and vascular congestion associated with the stretched overlying tissue and translucent character of the accumulated mucin beneath [1, 4]. In children prevalence of mucous retention phenomena is low due to inability of ductal structure to contain an exaggerated accumulation of secretion [7, 8]. Micro-marsupialization [12] has been suggested to have lower recurrence rates, although it is restricted to lesions with clinical characteristics that strongly suggested a diagnosis of mucocele. Cryosurgery has yielded satisfactory results with no recurrence. Reported postoperative symptoms, however, included marked edema and irritation, as well as a prolonged healing time [13]. Vaporization with argon and Nd: YAG lasers have been described as a new technique for the treatment of mucoceles. Both lasers a procedure presented satisfactory results with low recurrence rates and were well tolerated by the patients, whose discomfort was the main complaint reported [14]. The main advantages of soft tissue laser applications are minimal bleeding, swelling and postoperative pain and very less surgical time, scarring, and coagulation, without any need of suturing after excision because of natural wound dressing due to denatured proteins [15].

## CONCLUSION

Mucocele is one of the most common soft tissue lesions of the oral cavity which cause distress and discomfort to the patient. Most of the reported literature showed lesion arose followed by trauma and a habit of lip biting. Majority of these lesions are seen in the lower lip which can be disturbing in function and unesthetic 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, anxiety and discomfort.

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