

## MUCOCELE IN THE ORAL CAVITY: A CASE SERIES.

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### ABSTRACT

Mucoceles are benign lesions that collect mucus that can develop in the oral cavity at different locations. This case series provides a thorough analysis of mucocele cases diagnosed and treated during six months at ESIC Medical College and Hospital in Kk Nagar, Chennai. Five instances in all were found to have lesions in the buccal mucosa of the lower lip. Analysis was done on the clinical and histological characteristics and treatment results. Surgical excision was used to treat the lesions. There were no documented recurrences over the three-month to one-year follow-up period. The clinical presentation, diagnosis, and treatment of mucocele in the oral cavity are highlighted in this case series, with a focus on the significance of early detection and intervention to avoid complications and recurrence.

**Keywords:** Mucocele, minor salivary glands, oral cavity, surgical excision.

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### Introduction

Mucoceles are benign lesions that collect mucus that can develop in the oral cavity at different locations. Mucin builds up in the connective tissue of these lesions, which are frequently caused by inflammation, trauma, or obstruction of the small salivary glands. Mucocele can appear as blister-like, swollen, or painless lesions in any age group, but it is more common in children and young people (1).

Mucocele is most commonly found in the oral cavity, where it commonly affects the floor of the mouth, lower lip, tongue, and buccal mucosa. Notwithstanding their benign nature, mucocele can impair speaking, eating, and other oral functions in addition to causing pain, discomfort, and cosmetic issues. If the mucocele found in the mouth's floor is referred to as the ranula (2).

Mucocele is primarily diagnosed clinically based on the characteristic appearance and location of the lesion; however, radiological investigations and histopathological examination may be required to confirm the diagnosis and rule out other conditions. Treatment options for mucocele include conservative management, surgical excision, and marsupialization; the lesion's size, location, and symptoms will determine the best course of action (3).

This case series provides a thorough analysis of mucocele cases diagnosed and treated during six months at ESIC Medical College and Hospital in Kkk Nagar, Chennai. This

study's objectives are to describe the clinical characteristics, diagnosis, course of therapy, and results of mucocele in the oral cavity and to emphasize how critical it is to identify and treat these lesions as soon as possible.

### Case Reports

#### CASE 1

A 16-year-old male patient's main complaint when he arrived at the dental department of Esic Medical College and Hospital in K.K. Nagar, Chennai, was swelling above his lower lip for the previous 15 days. The swelling started modestly and grew over time to its current magnitude. No pertinent medical history was found.

Upon intraoral examination, the left side of the lower labial mucosa showed a single dome-shaped enlargement. The swelling was 1 cm in size, rounded at the edges, and extended from the lower lip's vermilion border. The mucosa next to the swelling is white. Soft to firm in consistency, non-tender to the touch. The patient described their history of lip-biting. Chewing and speaking were uncomfortable.

Based on its clinical characteristics and habit, the lesion was identified as a mucocele. Under local anesthesia, a 15-number blade incision was made circumferentially around the lesion and removed from its base as part of routine surgical studies. Haemostasis was then reached. 3-o A simple interrupted suture was inserted. The specimen was submitted for histological analysis. The healing process went smoothly. For six months, the patient was monitored, and no recurrence was noted.



### CASE 2

A 17-year-old male patient reported to the department of dentistry at Esic Medical College and Hospital kK Nagar, Chennai, with the chief complaint of swelling over the left cheek region for the past 2 months. The swelling started modestly and grew over time to its current magnitude. No pertinent medical history was found.

A single, spherical, slightly erythematous, fluctuant lesion that is soft to the touch and non-tender to the touch is

observed on intraoral examination across the left side of the buccal mucosa, 4 to 5 mm from the mucogingival junction. Six months ago, the patient provided a history of trauma.

Using a 15-number blade and local anesthesia, the lesion was removed, stitches were made, and the specimen was sent for histological analysis. After six months of follow-up, no recurrence is observed.



### CASE 3

A 17-year-old male patient's main complaint when he arrived at the dental department of Esic Medical College and Hospital in K.K. Nagar, Chennai, was swelling above his lower lip for the previous 15 days. The swelling started modestly and grew over time to its current magnitude. A similar swelling that was observed eight months ago was operated on outside, and the identical complaint has now been brought to the department. No pertinent medical history was found.

On intra-oral examination, a single swelling is seen over the left side of the lower lip, the lesion seen 3-5 mm away from the vermilion border which is 1\*2 cm in size, slightly blue, soft to firm in consistency, nontender on palpation. The was buccally placed 23,33.

reached its current size. Eight months ago, the patient provided a history of trauma. Chewing and speaking were uncomfortable. The patient was taking medication for a thyroid condition.

Upon intraoral examination, a solitary, dome-shaped enlargement was observed above the lower lip's left labial mucosa. The enlargement, which measured 8 to 9 mm and extended towards the lingual vestibule, was 2-3 mm below the lower lip's vermilion border. Its color was comparable to that of the surrounding mucosa. Soft in consistency and not sensitive to the touch.

The lesion was classified as a mucocele based on its clinical appearance and history. The endocrinologist's opinion was received, routine surgical investigations were done, and under local anesthesia by using 15 15-number blade incisions were placed circumferentially around the lesion it was excised from the base, and hemostasis was established. 3-0 Vicryl placed a simple interrupted suture. A specimen for histopathological analysis was sent. The recovery process went smoothly. After six months of follow-up, there was no sign of a recurrence.

### CASE 4

A 42-year-old female patient's main complaint when she arrived at the dental office was swelling around her lower lip which had been there for a month. The swelling began as sporadic and then progressively increased until it



### CASE 5

A 38-year-old male patient reported to the Department of Dentistry with the chief complaint of swelling over the left side of the cheek region from the past month. The swelling was gradually increased to the present size. The patient had hypertension under medication.

On intraoral examination, a round, solitary, fluctuant swelling was seen on the left buccal mucosa 1cm away from the left side of the angle of mouth. The swelling was 1\*1 cm in size, soft in consistency, and mucosa over the

swelling is normal to the adjacent area. There was difficulty in chewing.

Physician opinion was obtained, routine surgical investigations were done, and under local anesthesia by using 15 15-number blade incision was placed circumferentially around the lesion it was excised from the base, and hemostasis was achieved. 3-0 vicryl simple interrupted suture placed. The specimen was sent for histopathological examination. The healing was uneventful Patient was under follow-up for 6 months, and no reoccurrence was observed.



### Discussion

This case series focuses on the clinical presentation, diagnosis, and treatment of mucoceles, which are somewhat common lesions in the oral cavity. In most of the instances in our collection, the lesion was blister-like, swollen, and painless.

Consistent with previous research, the most often impacted area was the lower lip. This could be because there are a lot of little salivary glands in this area. To a lesser degree, the floor of the mouth, buccal mucosa, and tongue were also impacted. (4)

Mucocele is primarily caused by trauma and blockage of the salivary gland duct. There are three stages of pathogenesis. The first is when mucus from the salivary gland leaks into nearby tissues. Granulomas are formed in the second phase. (5)

Mucocele is mainly diagnosed clinically, depending on the lesion's distinctive appearance and location. However, to confirm the diagnosis and rule out other lesions, radiological tests like MRI or ultrasound may be helpful. To confirm the diagnosis and rule out other disorders, like salivary gland tumors, histopathological investigation is also crucial. (6)

Consistent with previous publications, the most prevalent treatment option in our series was surgical excision. This method lowers the chance of recurrence and enables the lesion to be completely removed. In some cases, if the lesion was tiny and asymptomatic, conservative therapy was also employed. (7)

According to the literature, mucocele has a typically good prognosis with minimal recurrence rates. During the



follow-up period, no recurrences were reported in our series.

In conclusion, mucoceles are benign lesions that can occur in various sites within the oral cavity. Accurate diagnosis and prompt treatment are essential to prevent complications and recurrence. Surgical excision is the most effective treatment modality, although conservative management may be used in selected cases. Further studies are needed to better understand the pathogenesis and natural history of these lesions.

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### CONCLUSION

In conclusion, this case series highlights the clinical features, diagnosis, treatment, and outcomes of mucocele in the oral cavity. Our findings suggest that mucoceles are relatively common lesions that can occur in various sites within the oral cavity, with the lower lip being the most frequently affected site. Surgical excision was the most effective treatment modality, resulting in complete resolution of the lesion with minimal complications.

The results of this study emphasize the importance of prompt recognition and treatment of mucocele to prevent complications and recurrence. Clinicians should be aware of the clinical features and diagnosis of mucocele and should consider surgical excision as the primary treatment option. Further studies are needed to better understand the pathogenesis and natural history of mucocele and to develop more effective treatment strategies.

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