

## Background

A mucocele is a common lesion in children that typically forms when a minor salivary gland duct is injured, causing mucin to leak into the surrounding tissue. A small fibrous capsule may develop around the fluid resulting in a small, bluish or skin-colored soft swelling that is often firm to the touch and is typically painless. Mucoceles most often appear on the lower lip lateral to the midline but may also occur in areas like the cheeks, tongue, or floor of the mouth (ranula). While many mucocles resolve on their own, some will persist or recur, requiring surgical removal to prevent further irritation and discomfort.

## Case Report

A healthy 7-year-old Hispanic male presented to Children's Wisconsin Dental Clinic with a 6-month history of a recurrent, irritative lesion on the lower right lip. The lesion initially resolved on its own after four months but quickly returned and persisted for an additional two months. Clinical examination revealed a soft, fluctuant nodule consistent with a mucocele. On 12/27/2024, the lesion was surgically excised under local anesthesia during an outpatient visit. Six minor salivary glands surrounding the lesion were also removed to help minimize the risk of recurrence. The site was closed with five sutures, and the specimen was submitted for histopathologic analysis, which confirmed the diagnosis of a mucocele. At the post-operative follow-up on 1/15/2025, a possible recurrence of the lesion was noted and the patient was scheduled for a second excisional biopsy on 3/7/2025. However, at that visit, the lesion had fully resolved and the lower lip was completely healed, with only a small scar visible at the original excision site. The oral surgeon reviewed the clinical photograph from the previous visit and agreed with the provider's assessment, confirming the tissue appearance noted on 1/15/2025 was most likely granulation tissue associated with normal healing rather than a recurrence of pathology.

## Pre-Treatment



## Time Frame

10/14/2024	Patient was seen at urgent care due to suspected mucocele present on LR lip (present ~4 months). Provider offered to excise it but grandma deferred due to patient not feeling well that day.
11/4/2024	Patient presented for to clinic with grandma reporting the lesion "popped" the day before. Grandma aware they usually resolve on their own, but provider would eval for excision if it returned.
12/3/2024	Patient presented for recall exam with suspected mucocele recurring, grandma reported it was bigger in size compared to previous lesion. Patient reports no pain with lesion. Patient scheduled for soft tissue excisional biopsy.
12/27/2024	Soft tissue excisional biopsy completed under the supervision of an oral surgeon. Histopathological evaluation confirmed diagnosis of mucocele.
1/15/2025	Patient presented for post-operative follow-up eval with concern of Mucocele recurring. Patient scheduled for second soft tissue excisional biopsy.
3/7/2025	Patient presented with lesion resolved and soft tissue fully healed.

## Treatment

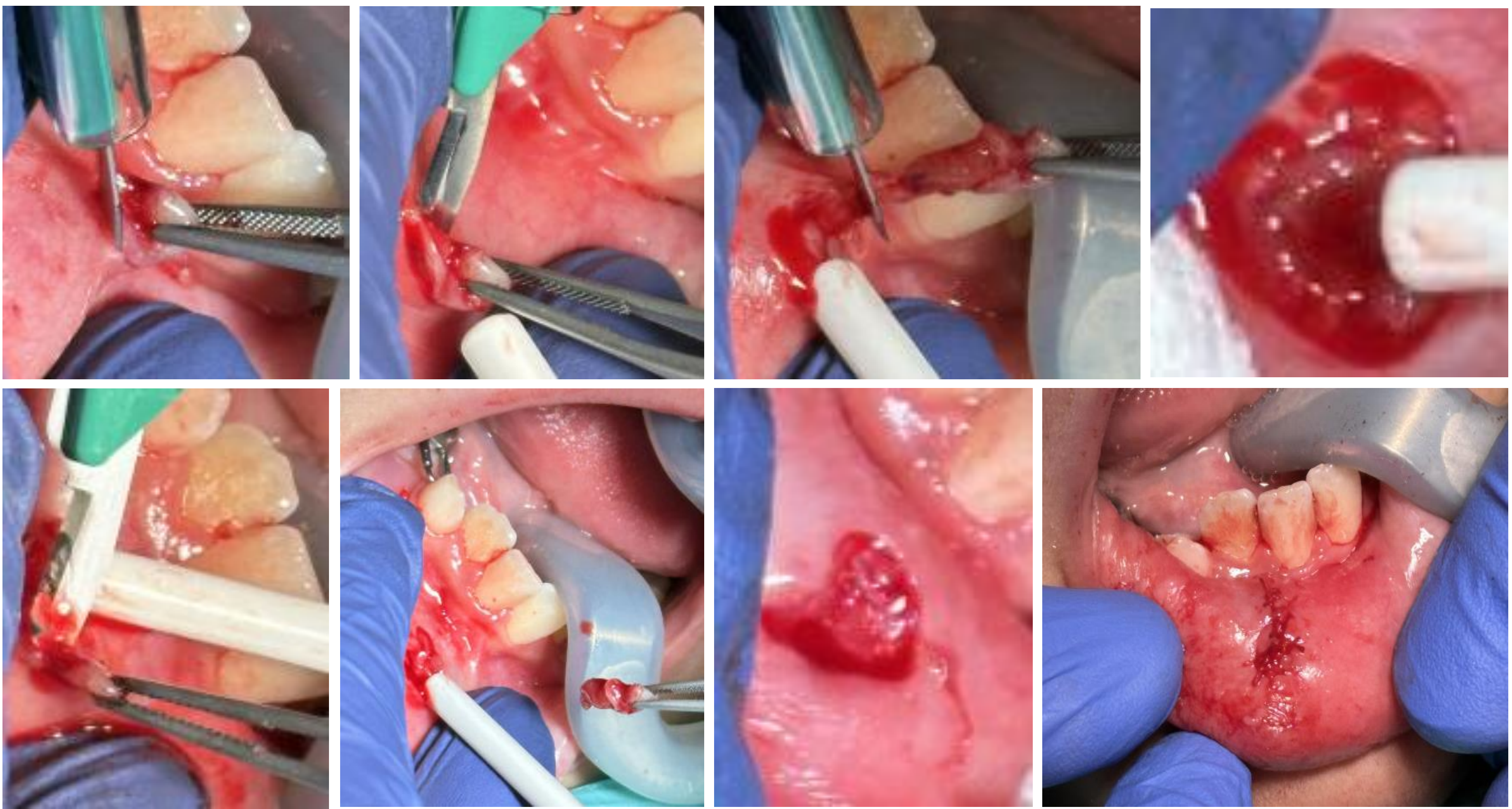
## Post-Treatment



2.5 weeks post-op

10 weeks post-op

## Surgical Treatment



## Conclusion

Mucocele, while common in pediatric patients, may persist or recur without appropriate intervention. This case demonstrates the effectiveness of soft tissue excisional biopsy combined with removal of adjacent salivary glands in preventing recurrence. Early diagnosis, surgical intervention, and follow-up are essential for long-term resolution. Pediatric dentists play a vital role in managing these cases and coordinating care with surgical specialists when needed.

## References

American Academy of Pediatric Dentistry. Management considerations for pediatric oral surgery and oral pathology. The Reference Manual of Pediatric Dentistry. Chicago, Ill.: American Academy of Pediatric Dentistry; 2024:523-32.

Mukundan D, R R. Pediatric Oral Mucocele Management: A Case Series Investigating Different Treatment Approaches. Cureus. 2024 Jun 28;16(6):e63342. doi: 10.7759/cureus.63342. PMID: 39077290; PMCID: PMC11283918.

Wu CW, Kao YH, Chen CM, Hsu HJ, Chen CM, Huang IY. Mucoceles of the oral cavity in pediatric patients. Kaohsiung J Med Sci. 2011 Jul;27(7):276-9. doi: 10.1016/j.kjms.2010.09.006. Epub 2011 Apr 17. PMID: 21757145.