Case Report of a Radiolucent Lesion with an Unknown Etiology

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Introduction

The death of the pulp in primary teeth may lead to inflammation which can give rise to radicular cysts. If not treated immediately, the cyst can grow and lead to loss of alveolar bone and the need for marsupialization or enucleation.

Case Report

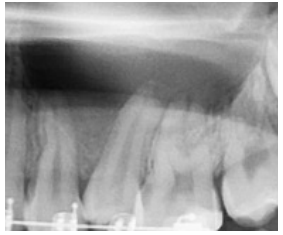
A healthy 15-year-old female presented for a 6 month recall with no chief complaint. A periapical radiograph and panoramic radiograph were taken showing a large radiolucent expansive lesion with a thinly corticated border displacing the roots of #12 and 13. The lesion extended from the roots into the maxillary sinus. The patient denied pain, swelling, drainage, or mobile teeth.

The patient was referred to ENT for a CT which showed a 3.5 x 2.9 x 2.2 cm unilocular cystic lesion extending from the alveolar ridge into the left maxillary sinus with erosion of the palatal bone. A deep bone biopsy of the left maxilla was completed by OMFS and sent out for pathology. The findings of the biopsy were consistent with an inflamed odontogenic cyst. The cyst's location between the roots of #12 and 13 favors a radicular cyst.

6/12/2018

03/06/2020

10/31/2025



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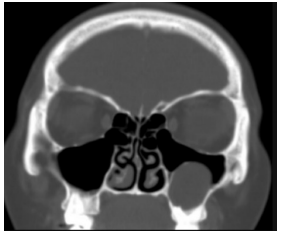

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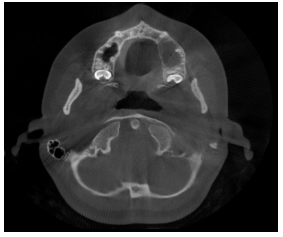
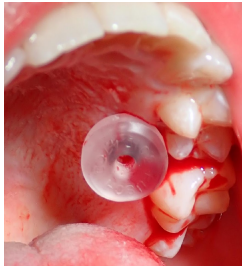
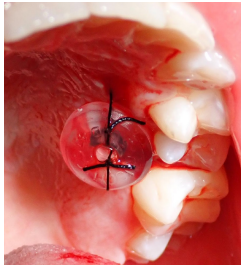


03/11/2026

2/11/2026 - Retrieval of first drain



2/11/2026 – Replacement with Nasopharyngeal Airway



Current Status

Pulp vitality testing was conducted and #11-15 tested within normal limits. The lesion likely originated from a pulpotomy treated #J. Due to the current size of the lesion, marsupialization with later enucleation was recommended to allow the lesion to shrink and for bone to fill in around the existing dentition. Marsupialization was begun and the drain was placed. After the dislodgement of the second drain, the site remained open, and the patient has been irrigating twice a day with a sodium chloride rinse.

Conclusion

The lesion likely stems from a radicular cyst of #J. A cone beam radiograph will be taken in May of 2026 to determine extent of bony fill in cyst cavity. Patient will return for periodic follow-ups, continue to irrigate the site with sodium chloride rinse twice a day, and enucleation will likely take place in 6-12 months.

References

Lustig JP, Schwartz-Arad D, Shapira A. Odontogenic cysts related to pulpotomized deciduous molars: clinical features and treatment outcome. Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 1999 Apr;87(4):499-503.
Sandhyarani B, Noorani H, Shivaprakash PK, Dayanand AH. Fate of pulpectomized deciduous teeth: Bilateral odontogenic cyst? Contemp Clin Dent. 2016 Apr-Jun;7(2):243-5.