

# Buccal Bifurcation Cyst: A Case Report

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## INTRODUCTION

A buccal bifurcation cyst/inflammatory buccal cyst is a rare inflammatory odontogenic cyst that typically occurs at the buccal region of the first or second mandibular molars at the time of eruption, although involvement of erupting premolars and third molars have been observed. This is typically found in children aged between 6-8 years and 11-12 years old, correlating with the eruption of the associated molar. Histologic examination is performed to rule out benign odontogenic cysts and tumors, and often reveals inflammatory epithelium consistent with inflamed cyst, the buccal bifurcation cyst is identified by clinical, radiographic and histologic findings.

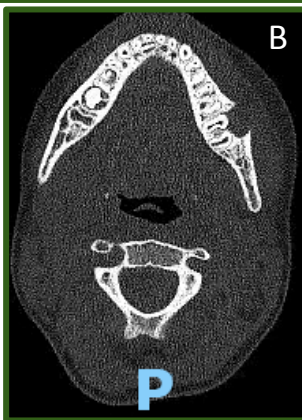
## CASE DESCRIPTION

In this case report, we introduce a 6-year-old boy who presented to the pediatric dental clinic at Cohen Children's Medical Center for evaluation of a tender firm facial swelling associated with the left body of mandible. Intraoral examination revealed a partial eruption of the left permanent mandibular first molar (tooth #19) with overlying tender inflamed operculum, and tender bony expansion of the buccal aspect of the mandible. He had excellent oral hygiene and there were no signs of any clinical caries throughout the dentition. The panoramic radiograph revealed a slight circular radiolucent lesion localized at the midroot of tooth #19 while the CT scan revealed bony expansion with dehiscence of the buccal cortical bone, also by site #19. The differential diagnosis of this lesion included buccal bifurcation cyst, inflammatory odontogenic pathology and ameloblastoma. A biopsy was performed, and histopathologic analysis revealed an acutely inflamed cyst consistent with buccal bifurcation cyst.

## INITIAL RADIOGRAPHIC PRESENTATION

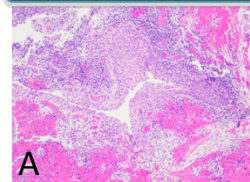


A: Well-defined circular radiolucent lesion at the apices of tooth #19.

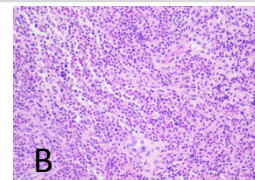


B: Radiolucent perforation through the buccal plate of tooth #19.

## HISTOPATHOLOGY



A: Epithelial lined granulation tissue consistent with inflamed cyst.



B: Acute inflammation in association with granulation tissue.

## CONCLUSION & RESULT

The key characteristics of this lesion include buccal swelling associated with erupting mandibular molars, with radiolucency localized at the furcation or the mid root of the affected teeth. These teeth are often non-carious and are vital. We demonstrate the importance of recognizing such cysts to appropriately identify and manage these patients efficiently. Biopsy of the cyst is required to rule out other entities and upon definitive biopsy, enucleation of the cyst is often curative.

## RESOURCES

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3. Shohat I, Buchner A, Taicher S. Mandibular Buccal Bifurcation Cyst: Enucleation without Extraction. 2003.