Unicystic Ameloblastoma: Two case reports of healthy children presenting at Children's Wisconsin

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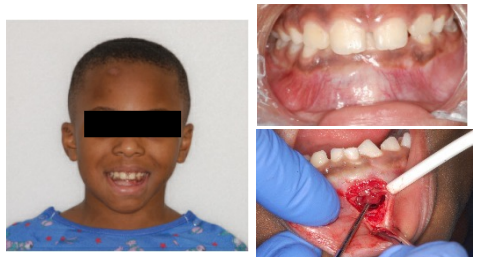
Introduction

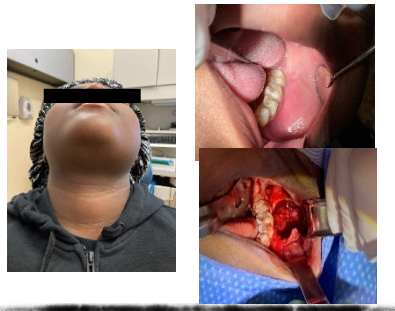
Ameloblastoma is the most clinically significant odontogenic tumor and is typically slow growing, locally invasive, and primarily benign. Ameloblastomas arise from odontogenic epithelial origin and can be characterized into three different categories: conventional solid/multicystic, unicystic, or peripheral. This case report focuses on unicystic ameloblastomas. This type of ameloblastoma is seen in younger patients, half of which are diagnosed during the second decade of life. The majority of lesions are found in the posterior mandible and are often asymptomatic. These lesions are usually treated by enucleation, though local resection is sometimes indicated. Long term follow up is important to monitor for possible recurrence. Recurrence rates for unicystic ameloblastomas range between 10-20% after enucleation and curettage, which is less than conventional solid/multicystic ameloblastomas.

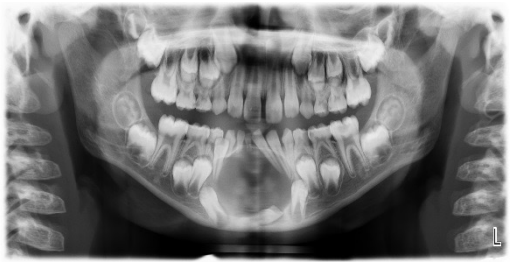
Case Report 1

A healthy 8 year old African American male presented to the emergency room with chief complaint of right sided facial swelling. Patient was admitted to the hospital and placed on IV antibiotics. Patient evaluated by dental service and expansion noted intraorally on the anterior mandible that was firm to palpation. A panoramic radiograph and CT of facial bones revealed a well circumscribed unilocular radiolucency measuring 3.7 x 2.4 x 2.8 cm in the anterior midline causing displacement of surrounding teeth. Incisional biopsy of area completed by OMFS, lesion was marsupialized and a drain placed. Pathology report indicated features of a unicystic ameloblastoma. A comprehensive dental exam revealed extensive caries and patient underwent dental rehabilitation under general anesthesia. Patient was re-evaluated by OMFS and panoramic radiograph showed a radiolucent lesion decreasing in size with improved alignment and eruption of #22, 25 and 27, although #25 was still low in mandibular height. Patient remained asymptomatic throughout treatment and follow up. Patient is planned for OMFS follow up in June of 2022 for a CBCT and eventual enucleation of remaining lesion and orthodontic intervention as indicated.

Clinical and Radiographic Presentation







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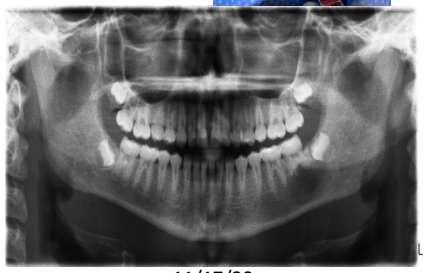

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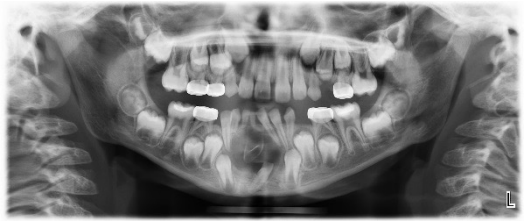

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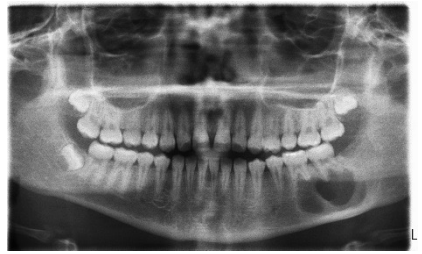

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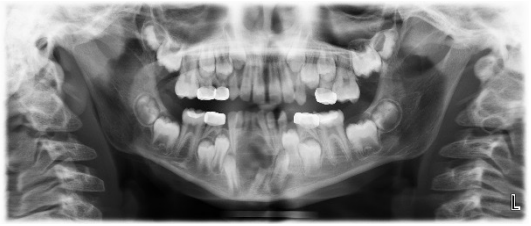

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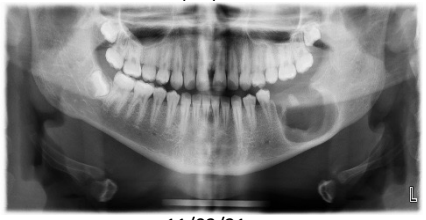

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Case Report 2

A 13 year old healthy African American female presented for a routine hygiene appointment. A panoramic radiograph revealed a non-corticated radiolucent lesion extending apicaly to tooth #18 mesially to tooth #19, causing root resorption of #18. Patient referred to a community OMFS - biopsy and extraction of #17 completed with pathology report concerning for cystic ameloblastoma. Patient did not return to community OMFS after follow up appointment. Patient then presented to dental clinic with chief complaint of increased swelling of lower left side. New panoramic radiograph showed bi-locular well-defined, non-corticated radiolucent lesion apical to #18,19. On clinical exam a firm extra and intra oral swelling appreciated upon palpation. After consultation with OMFS a CT was obtained. A new biopsy of the lesion indicated a neural variant of unicystic ameloblastoma or conventional ameloblastoma with a cystic zone. Patient treated in the operating room under general anesthesia for lesion enucleation with extraction of #18,19. Pathology report confirmed a unicystic ameloblastoma, mural type with no evidence of atypia or malignancy. Patient received a maxillary essix retainer to help prevent supraeruption of #14 and 15 until definitive tooth replacement of tooth #18 and 19.

Conclusion

These two case reports are unique due to the relatively low prevalence of ameloblastomas in children. Both of these cases show the importance of multidisciplinary care required for pathology arising in pediatric populations. The need for collaboration of the pediatric dentist, oral surgeon, and orthodontist is paramount in these cases due to disturbance in growth and development. Long term follow up will monitor for re-occurrence.

Resources

Neville, B.W. (2002). Oral and Maxillofacial Pathology. Philadelphia, PA: W.B. Saunders Co.

Marx, R. (2012). Oral and Maxillofacial Pathology: a rationale for diagnosis and treatment. Hanover Park, IL. Quintessence Publishing Co.