

Ameloblastic Fibro-Odontoma Case Report: An Interdisciplinary Team Approach

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INTRODUCTION

Ameloblastic fibro-odontoma (AFO) is normally found in young patients, with no significant gender predilection. The common chief complaints associated with AFO are swelling and failure of tooth eruption. Clinically, it presents as a painless swelling of the affected area ⁽²⁾. It is often located in the posterior aspect of the mandible ⁽⁴⁾. AFO most commonly presents as a well-circumscribed, unicystic lesion with mixed radiopacity radiographically ⁽¹⁾. Multilocular AFO lesions are less frequent ⁽¹⁾. The pathology of AFO demonstrates an epithelial odontogenic tumor with odontogenic mesenchyme. It shows histologic features of both ameloblastic fibroma and complex odontoma ⁽⁴⁾.

BACKGROUND

A 14-year-old male presented to for a new patient examination. Patient was seen by a dentist 3 years prior with no evidence of pathology detected upon clinical and radiographic examination. The patient reported left mandibular swelling that has been present over the past 2 years.

MEDICAL HISTORY:

- Attention-Deficit/Hyperactivity Disorder (ADHD)

MEDICATIONS:

- Clonidine and Risperdal

HISTORY:

- Mother reports patient is currently undergoing psychotherapy as has a history of getting into fist fights at school

PRESENTING CONDITION

CLINICAL EXAMINATION

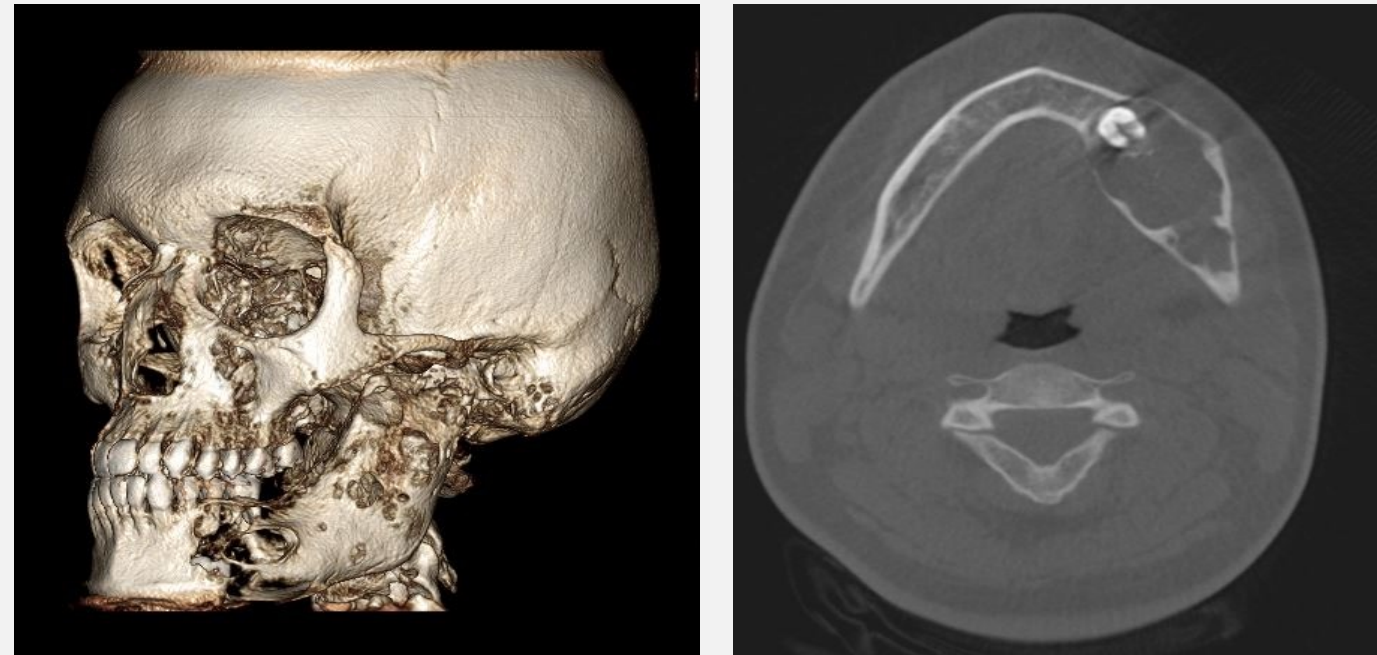
- EXTRAORAL: Expansion of the left mandibular body. No trismus present, no deviation upon opening.
- INTRAORAL: Expansile erythematous ulcerated lesion along the the left buccal vestibule extending distal to the first permanent mandibular molar. The lesion distal to tooth 19 was firm to touch and was not painful to palpation. No paresthesia was present.



RADIOGRAPHIC EXAMINATION

LESION DISCRIPTION

- RADIOPACITY: Multilocular lesion with mixed radiopaque/radiolucent appearance
- DEFINED: Well-defined
- CORTICATION: Corticated
- SIZE, SHAPE, LOCATION: Honeycomb shaped lesion on left side of mandible, encompassing condyle, coronoid process, body, angle, and ramus of the mandible. The lesion extends mesially to the inferior aspect of tooth 22
- DISPLACEMENT: Tooth 18 displaced is mesially and apically toward inferior border of the mandible adjacent to tooth 21. Expansion of the left body and ramus was present.



OTHER FINDINGS

- Tooth 6 is horizontally impacted. Tooth C is over retained.
- Congenitally missing Tooth 1, 17, 32. Tooth 16 is radiographically present
- Root blunting present at the apex of tooth 20

INTERPROFESSIONAL TEAM TREATMENT



OMFS

- BIOPSY: Incisional biopsy

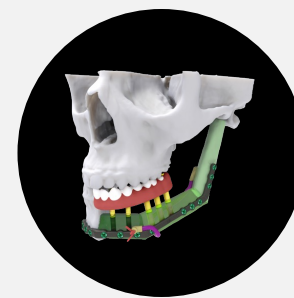


ORAL PATHOLOGY

- HISTOPATHOLOGIC EXAMINATION: Incisional biopsy findings were compatible with a diagnosis of Ameloblastic Fibro-dentinoma.



OMFS, MAXILLOFACIAL PROSTHODONTIST & ORAL PATHOLOGY



- TREATMENT: Hemimandibulectomy, fibula free flap reconstruction, inferior alveolar nerve reconstruction with immediate placement of dental implants and dental prosthesis for same day reconstruction.
- DEFINITIVE PATHOLOGY: Microscopic examination of the surgical specimen revealed a benign mixed odontogenic tumor comprised of hard and soft tissues. Histopathologic evidence of developing complex odontoma were identified. Considering the patient's histologic, radiographic, and clinical findings, his final diagnosis was most consistent with a benign mixed odontogenic neoplasm with AFO ⁽¹⁾.



PEDIATRIC DENTISTRY

- Continuation of preventative care and routine restorative as needed



ORTHODONTICS

- Consultation to treatment plan correction of the ectopic canine

DISCUSSION

- AFO is a benign, usually circumscribed noninvasive lesion ⁽¹⁾. Most treatment includes enucleation or surgical curettage accompanied by long-term follow-up ⁽¹⁾. The atypical presentation of this patient required resection and reconstruction.

REFERENCES

- (1) David L. Best DDS MD, Farangis Farsio DDS, Kevin C. Lee DDS MD, Alfredo Aguirre DDS MS, Vladimir Frias DDS, MS, FACP, Michael R. Markiewicz DDS MPH MD, Aggressive presentation of ameloblastic fibro-odontoma: A clinical-pathological enigma, Oral Surg Oral ed Oral Pathol Oral Radiol 2023)
- (2) Surej Kumar LK, Manuel S, Khalam SA, Venugopal K, Sivakumar TT, Issac J. Ameloblastic fibro-odontoma. Int J Surg Case Rep. 2014;5(12):1142-4. doi: 10.1016/j.ijscr.2014.11.025. Epub 2014 Nov 13. PMID: 25437658; PMCID: PMC4276268
- (3) Omar N, Ullah A, Ghleilib I, Patel N, Abdelsayed RA. A Locally Aggressive Ameloblastic Fibro-Odontoma: A Case Report and Literature Review. Cureus. 2021 Dec 12;13(12):e20366. doi: 10.7759/cureus.20366. PMID: 35036200; PMCID: PMC8752350
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