

Multidisciplinary Approach to Treatment of Ameloblastoma in a Pediatric Patient

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Kids deserve the best.

Background

Ameloblastomas are benign odontogenic tumors composed of epithelia of ectodermal origin. They are slow growing but can demonstrate locally aggressive behavior. Approximately 80% of ameloblastomas occur in the mandible and 20% in the maxilla. While ameloblastomas are the second most common benign odontogenic tumor, they are rare and uncommon in patients under nineteen years old. Treatment involves surgical removal and reconstruction as needed in the case of resection with treatment being further complicated in the developing pediatric patient.

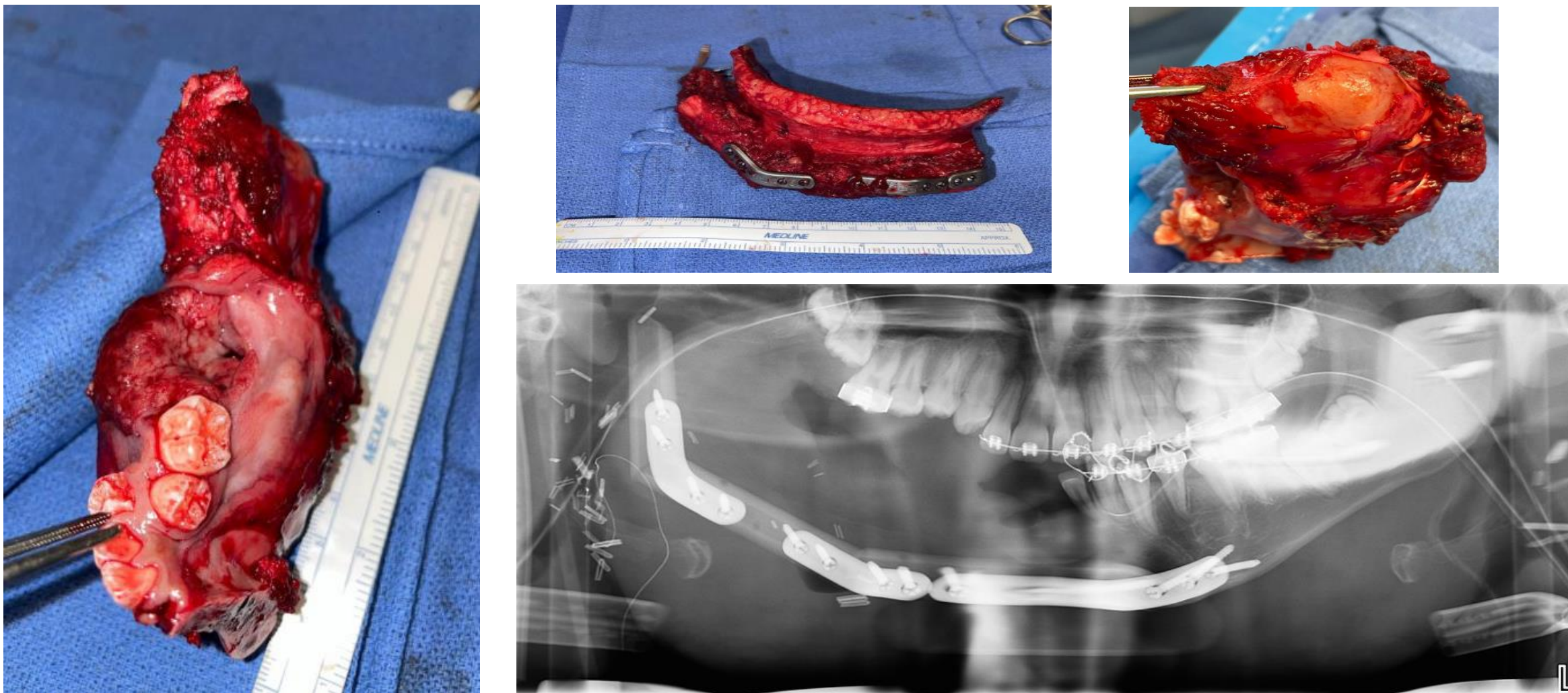
Case Report

A healthy ten year old African American female presented with significant right-sided facial swelling and was evaluated by ENT and Dental. Biopsy confirmed lesion to be ameloblastoma. Given the extent of the lesion, hemimandibular resection of the right side was completed with reconstruction using the left fibula. Patient underwent orthodontic treatment with elastics pre and post resection to stabilize occlusion.

Pre-Treatment



Surgical Treatment



Conclusion

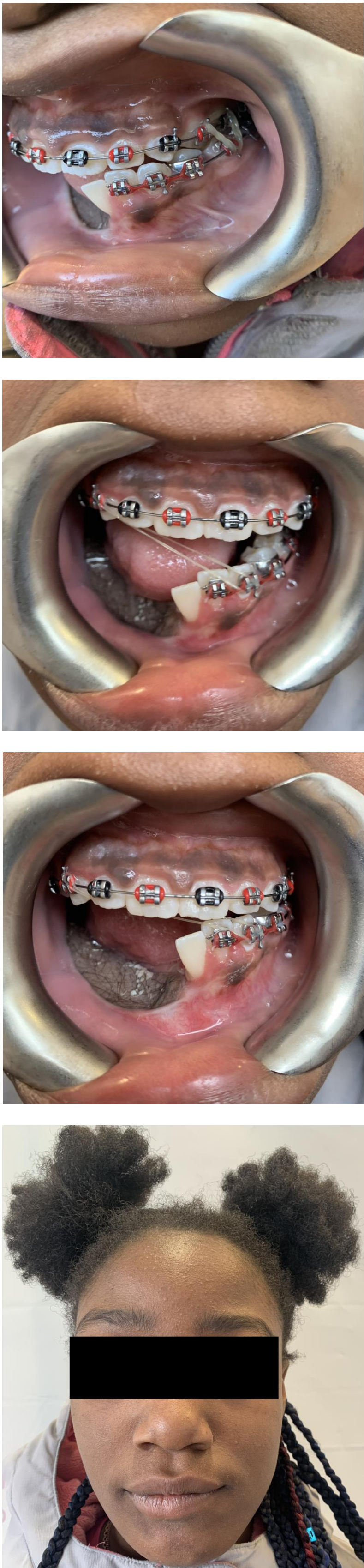
While ameloblastomas are most common in the third and fourth decades of life, the pediatric population does account for approximately 10-15% of reported cases. Treatment in the pediatric population is further complicated by the patient’s ongoing growth and development and long-term care is required. Patients are often best served by a multidisciplinary team approach in which the pediatric dentist plays a key role.

Time Frame

Treatment

July 19, 2021	Patient was seen in ED at St. Mary’s Hospital in Chicago with chief complaint of 1.5 month history of right sided swelling and intermittent pain.
July 20, 2021- July 26, 2021	Transferred to Lurie Children’s Hospital of Chicago and admitted. Discharged with antibiotics. Biopsy was not obtained due to barriers with insurance.
July 27, 2021 – July 28, 2021	Patient presented to ED in Sheboygan, WI due to increased swelling and difficulty eating, transferred to Children’s Wisconsin and admitted. ENT and Dental consulted. Biopsy completed with Oral Surgery. Pathology report indicates diagnosis of multicystic ameloblastoma.
March 16, 2022	Patient evaluated by ENT. Lesion noted to have progressed. ENT recommended given extent of lesion, mandible deficit, and large orocervical communication that will result from resection, fibula free flap be completed.
April 4, 2022	Orthodontic workup completed.
April 14, 2022	Orthodontic bonding completed with 012N arch wires.
April 29, 2022	Orthodontic check completed. Arch wires changed to 17x25N for increased rigidity in preparation for surgery.
May 2, 2022	ENT completed right hemimandibulectomy and mandibular reconstruction using fibula harvest.
May 5, 2022	Patient presented with intermaxillary fixation for orthodontic check to verify brackets and appliances intact and midline remains on. Radiographs taken and forwarded to surgical team.
May 17, 2022	Patient discharged.
June 3, 2022	Orthodontic check completed. Remaining MMF wire removed at request of ENT. ROM noted to be 1-2 finger width. Elastics started.
June 6, 2022	PT started to begin range of motion exercises.
Present	Monthly orthodontic checks completed and continued elastic wear. Patient is progressing towards stabilization of occlusion and preparing for debond.

Orthodontic Stabilization



References

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