

Unique Presentation of Multiquadrant Regional Odontodysplasia: A Case Report

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Introduction

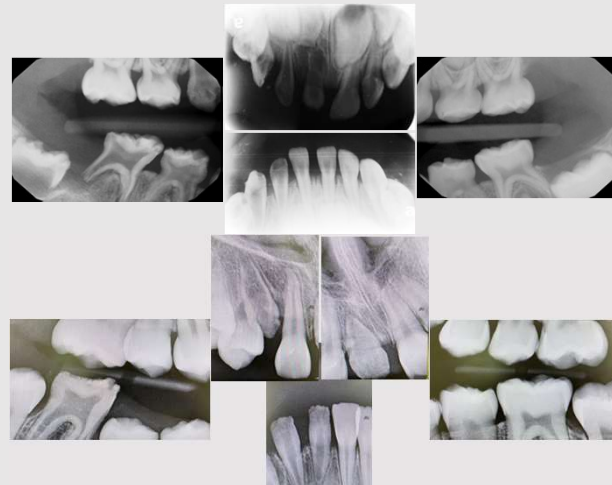
Regional odontodysplasia (RO) is a rare, non-hereditary, developmental dental anomaly that can affect both the deciduous and permanent dentition. RO most commonly occurs in the maxilla, generally is unilateral in nature and rarely involves more than a single quadrant. This presentation of RO is unique in its appearance as dental anomalies exist in both the maxilla and the mandible in the deciduous and the permanent dentition. Although the presentation is unilateral in nature and does not cross the midline, it does involve more than one quadrant. In the maxilla, only the anterior teeth are affected, while there is involvement of both the anterior and posterior teeth in the mandible. However, what is most interesting and noteworthy is the presence of normal-appearing teeth among the dysplastic teeth.

Patient History

Patient is a 10 year old female with a past medical history of asthma, allergic rhinitis, snoring and anxiety. Her medications include Albuterol, Montelukast, Loradamed and Sertraline. Patient and parents denied any history of trauma to the head and neck area, bleeding abnormalities or dental infections. Of note, the patient's mother did disclose that she was diagnosed with Lupus while she was pregnant with the patient and that she was subsequently placed on medication for disease management and stabilization. The mother could not recall which medication was utilized during her pregnancy. The parents also denied any family history of dental abnormalities on the maternal or paternal side of the family.

Deciduous Dentition

Patient was initially evaluated at the Case Western Reserve University School of Dental Medicine's Pediatric Department in July of 2015. Maxillary and mandibular occlusal radiographs and bitewings were obtained. Clinical notes dictate that teeth #C-E and Q-T appeared hypoplastic with a yellowish discoloration. Radiographically, it can be observed that teeth #C-E, Q and R have a ghost-like appearance due to reduced thickness and radiodensity of enamel and dentin, while teeth #S and T show signs of arrested development as represented by the blurred demarcation in the dentino-enamel junction and their abnormally large pulp chambers. The family was informed of the findings and the high likelihood that the developmental anomaly would subsequently impact the permanent dentition.



References

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Treatment of the Deciduous Dentition

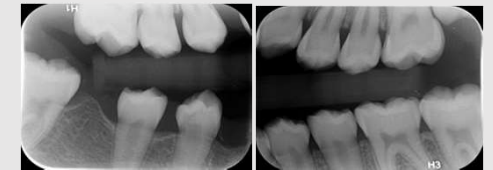
Patient was treated in the operating room under General Anesthesia at Rainbow Babies and Children's Hospital in November of 2015. Teeth #C, D, E, Q and R were restored with resin crowns. Teeth #S and T were restored with stainless steel crowns.

Permanent Dentition

Patient presented for recall appointment at the Case Western Reserve University School of Dental Medicine's Pediatric Department in March of 2022. Clinically we are able to appreciate the molted appearance and yellow discoloration of teeth #8, 25 and 26. Radiographically, it can be observed that teeth #6, 8, 25, 26, 27 and 30 have a ghost-like appearance with a blurred demarcation in the dentino-enamel junction, abnormally large pulp chambers and short roots.

Treatment of the Permanent Dentition

Patient was seen at Case Western Reserve University School of Dental Medicine's Oral and Maxillofacial Surgery Department for extraction of teeth #6, 8, 25, 26, 27 and 30 under IV Sedation in June of 2022. A modified Nance palatal arch appliance was fabricated to restore maxillary esthetics and phonetics 6 weeks post-operatively.



Continued Care

Patient is now on a routine recall schedule with Rainbow Babies & Children's outpatient clinic. A modified lower lingual holding arch is treatment planned to restore esthetics in the mandibular arch following the eruption of tooth #31. The patient was provided a referral to the Craniofacial clinic to allow for the development of a definitive treatment plan.

