

Case Report: Multidisciplinary Approach to Assessing Generalized Idiopathic Internal Root Resorption of the Primary Dentition

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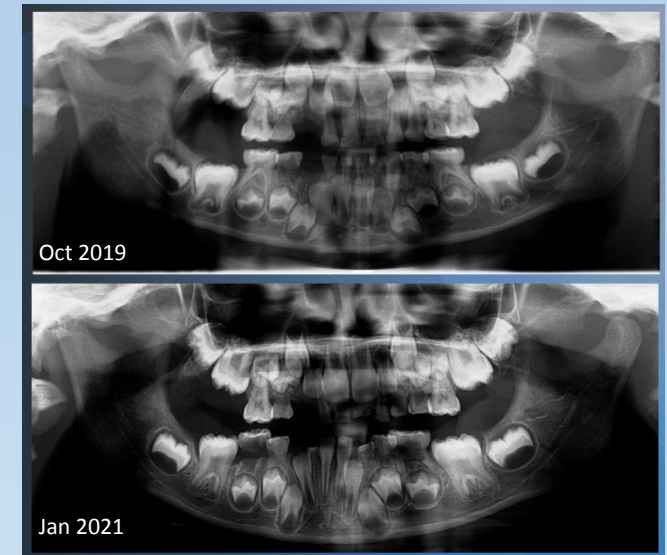
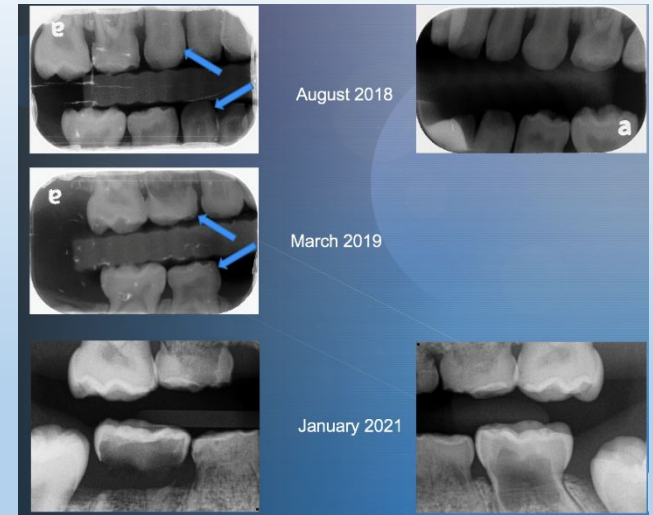
Clinical Presentation



Introduction:
Internal root resorption (IRR) is a physiological or pathological process that results in the loss of dentin, cementum, and/or alveolar bone affecting the pulpal structures. Loss of dentinal structure results in a "pinkish hue" in the dentition due to pulpal obliteration. There are no clinical or morphological differences in internal resorption between primary and permanent teeth; however, resorption progresses more rapidly in primary teeth. Pediatric patients diagnosed with IRR require early clinical intervention to stop physiologic progression and potential damage of the permanent dentition.

Case Report:
An 8 year-old female patient presented to Rainbow Babies and Children's Pediatric Dental Clinic for her hygiene recall appointment in January 2021. Clinical and radiographic exam confirmed she had generalized internal root resorption of the primary dentition. The patient's initial visit to the clinic was in 2017. The patient's medical history includes premature birth at 34 weeks with a one week NICU stay to stabilize jaundice levels, no current medications, no known allergies. Comparison of radiographs from 2018 and 2021 reveal premature loss of primary teeth and exhibit pattern of generalized internal root resorption with more severe teeth having perforations with bone deposition. Clinical examination reveals multiple primary teeth that are pink and mobile. In hindsight, 2018 radiographs show early signs of IRR in Tooth B. The 2021 radiographs reveal extreme IRR and bone deposition in Tooth B, in addition to remaining dentition.
The patient is currently being seen by Geneticists at Rainbow Babies and Children's Hospital. Pediatric Dentistry pre-emptively extracted Teeth K & L and sent to oral pathology lab testing, pending results.

Discussion:
For patients with IRR, a multidisciplinary approach is commonly needed involving pediatric dentists, general dentists, endodontists, prosthodontists, oral surgeons, and orthodontists. Early diagnosis for patients with IRR is key in optimal treatment which includes pain management, prevention, stabilization, restoration of any defects, and regular maintenance.



References:
1. Nasehi, Atefeh et al. "Localized idiopathic root resorption in the primary dentition: Review of the literature and a case report." *European journal of dentistry* vol. 9,4 (2015): 603-609. doi:10.4103/1305-7456.172617
2. Kim PH, Heffez LB. Multiple idiopathic resorption in the primary dentition: review of the literature and case report. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 1999 Oct;88(4):501-5. doi: 10.1016/s1079-2104(99)70070-3. PMID: 10519763.