



DOUBLE MESIODENS IN A 7-YEAR-OLD MALE

David H. Neal, DMD and Juan F. Yepes, DDS, MD, MPH, MS, DrPH
Indiana University School of Dentistry - Riley Hospital for Children, Indianapolis,
Indiana

BACKGROUND

Supernumerary teeth in the permanent dentition are relatively rare, presenting in 3.6% of children. Supernumerary teeth are named according to their location and those that present in the anterior, incisal region are called mesiodens. Most mesiodens are single-rooted and conical in shape but can present in a tuberculate shape as well. Approximately 90% of mesiodens are positioned palatally. The conical shape is more likely to spontaneously erupt, but approximately 75% of mesiodens will not erupt without intervention. Males have shown to present with mesiodens twice as often as females. Approximately 80% of people who have a mesiodens will present with a single mesiodens, and the other 20% will have 2 or more.

CLINICAL PRESENTATION

A 7-year-old Hispanic male patient presented to a comprehensive children's hospital outpatient dental clinic for a routine recall exam. The patient's mother stated that she "did not like the appearance of the tooth in the upper, middle part of his mouth." The patient's medical history consisted of adenoidectomy, tonsillectomy and well-controlled asthma. He had no known drug allergies. Clinical examination revealed a conical shaped tooth, which had erupted right of the maxillary midline. The permanent incisors had yet to erupt, and patient had his primary, right lateral incisor (tooth D), and his primary, left central incisor (tooth F) adjacent to the erupted mesiodens. A panoramic radiograph showed that permanent incisors were present. A subsequent periapical radiograph showed that there was the presence of an additional, less developed mesiodens located distal and apical to the erupted mesiodens.

PERIAPICAL RADIOGRAPH

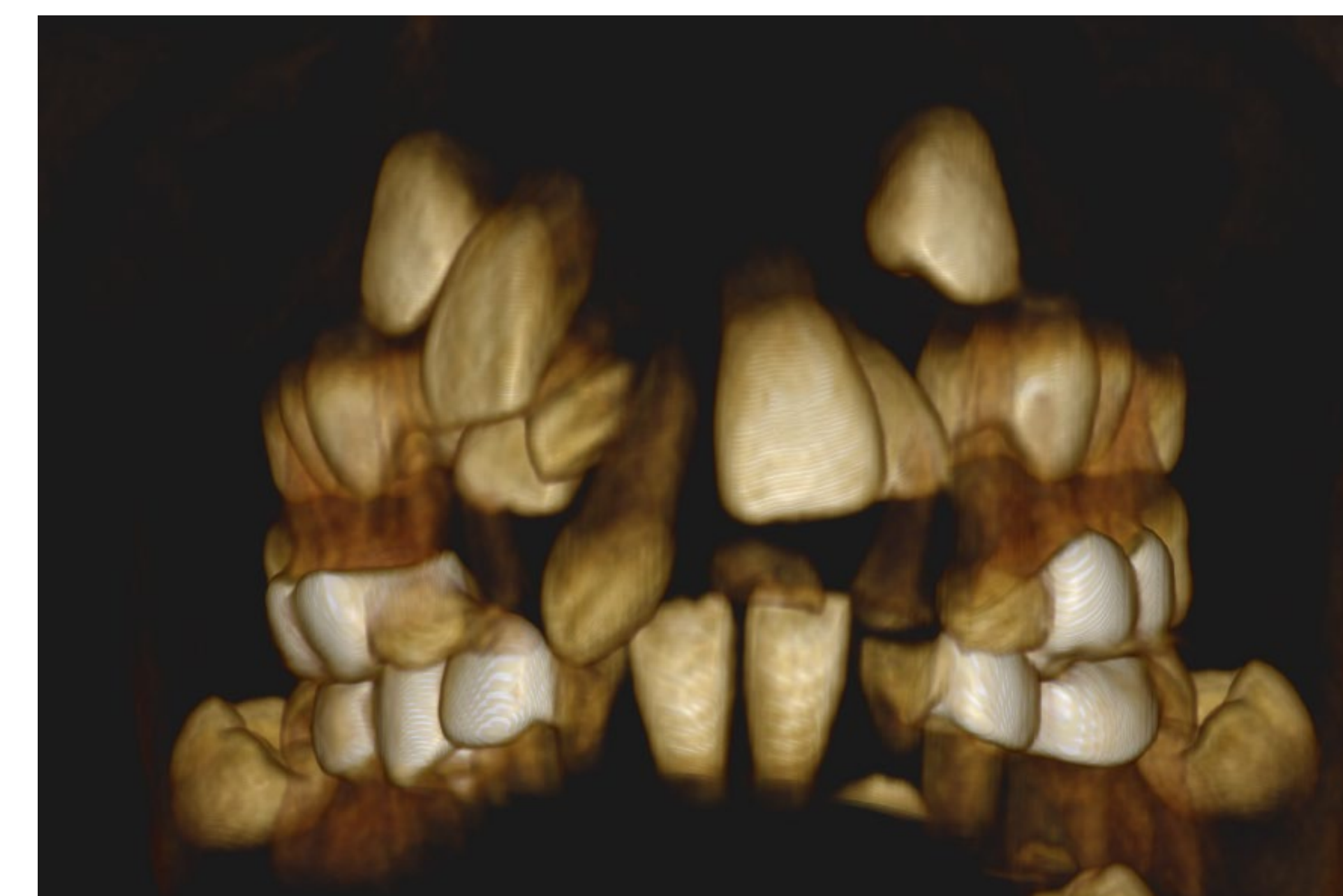
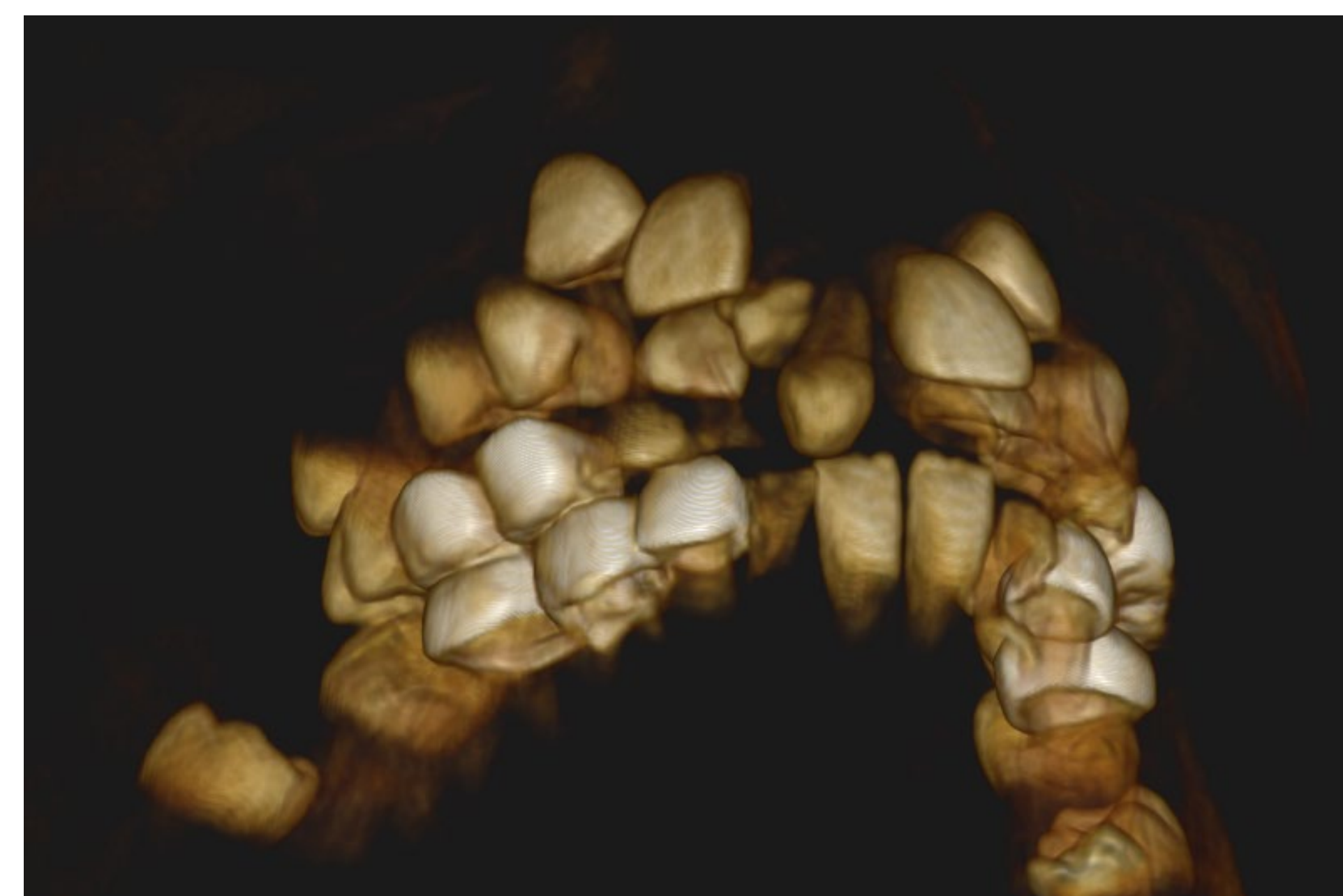
This periapical radiograph shows the erupted and conical shaped mesiodens, mesial to the unerupted mesiodens.



PANORAMIC RADIOGRAPH



CONE BEAM IMAGING



TREATMENT/MANAGEMENT

Mesiodens often cause delayed, or ectopic eruption of permanent teeth that are next to them. Due to this, it is often necessary to surgically remove them. A provider may decide to monitor the situation if they determine that the mesiodens is not disturbing the development of the adjacent teeth, nor causing the formation of a cyst. Waiting to extract the mesiodens can help in multiple ways. The mesiodens may erupt spontaneously, which would eliminate the need for a surgical procedure. Secondly, a child may be better able to endure a procedure once they are older. Additionally, if the roots of the permanent teeth are allowed to reach two-thirds to three-quarters of their expected length, it may reduce the chances for disturbing their coronal development. If the decision is made to extract the mesiodens, an eruption channel should be created by removing bone and soft tissue from the incisal third of the delayed permanent incisor. It is estimated that 80% of permanent maxillary incisors will spontaneously erupt after extraction of the mesiodens is completed. However, if scar tissue is present over the incisors, it can permanently delay their eruption. Orthodontics may be indicated to guide eruption and help with crowding.

This child was referred to the oral surgeon with our recommendation to extract #D, #58, #59, F and G. Additional radiographs will be taken at subsequent visits to monitor eruption of the permanent incisors.

REFERENCES

1. Dean, Jeffrey A. McDonald and Avery's Dentistry for the Child and Adolescent. Available from: Elsevier eBooks+, (11th Edition). Elsevier - OHCE, 2021.
2. Neville, Brad, W. et al. Oral and Maxillofacial Pathology. Available from: Elsevier eBooks+, (5th Edition). Elsevier - OHCE, 2023.

