

Unusual Presentation of Natal Teeth in a Neonate

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ABSTRACT

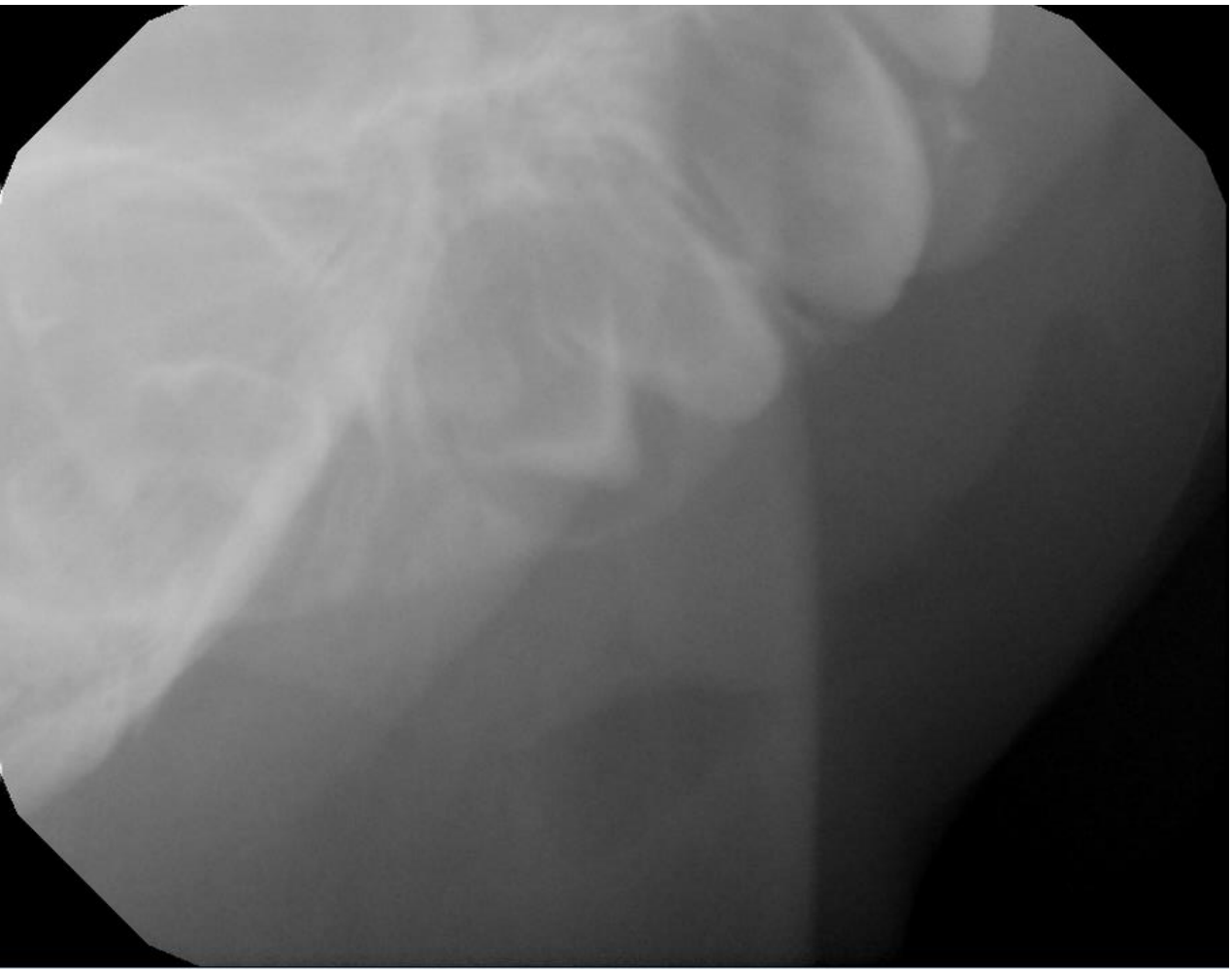
Primary teeth generally begin to erupt as early as 4 months of age. In rare circumstances, neonates have teeth erupted at birth. Natal teeth have unknown etiology but exhibit significant clinical implications to the neonate and mother. This report discusses a 23-hour-old female at the Rainbow Babies and Children's Hospital Nursey with mother's chief complaint of feeding issues. Upon clinical exam, this neonate had four natal teeth: two mandibular central incisors and two maxillary first molars. All four teeth exhibited clinical mobility and had undeveloped root formation radiographically. The teeth were extracted due to fear of aspiration, inability to adequately feed, mother's discomfort while feeding, and undeveloped enamel formation. The neonate's recovery was uneventful but begs the question of why these teeth erupted in the first place and the future implications of early extraction of four primary teeth.

INTRODUCTION

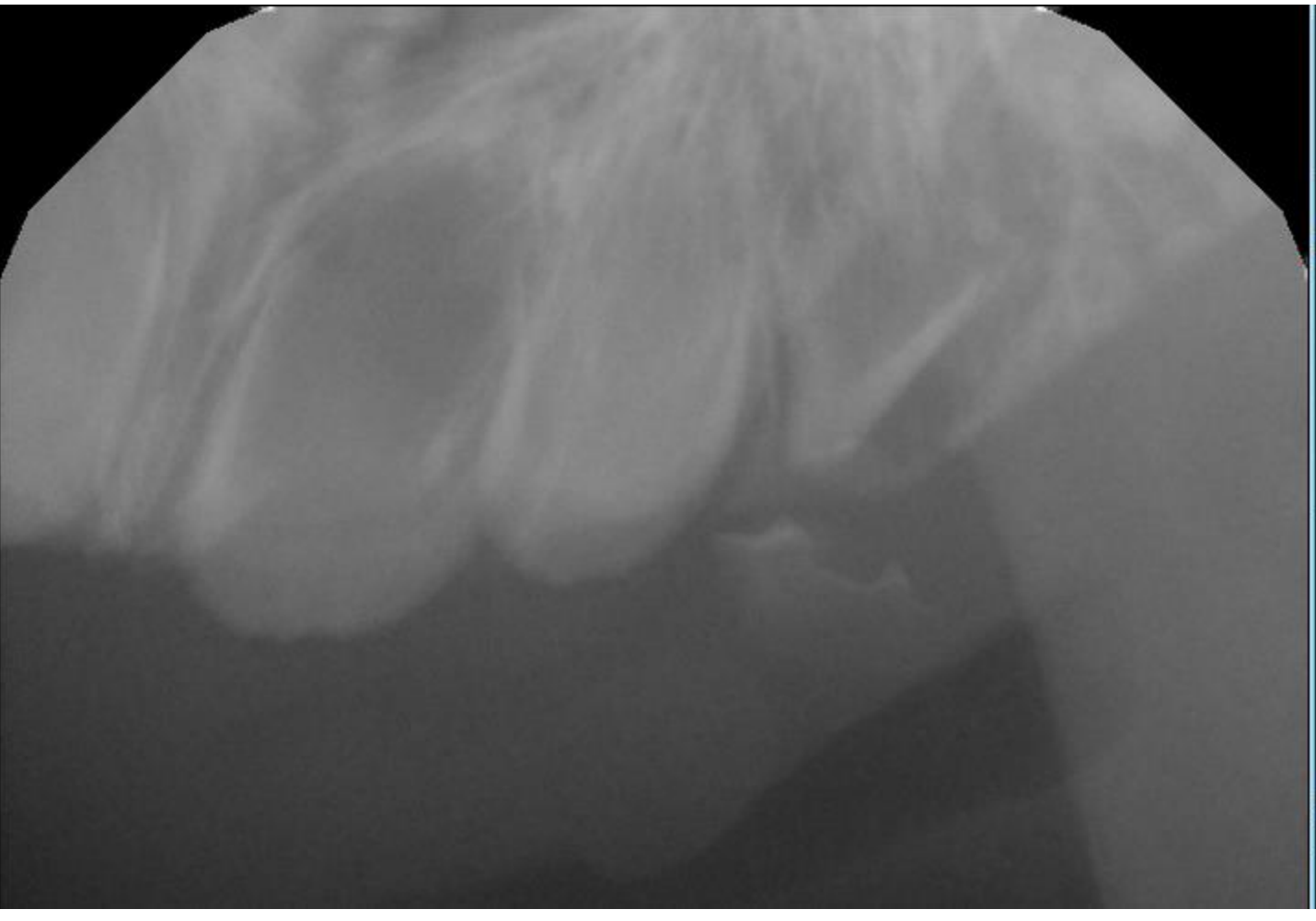
Natal teeth are present at birth whereas neonatal teeth erupt within the first month of life. Natal teeth are 3x more common than neonatal and the incidence ranges from 1:2000 to 1:3500. According to the literature, only 1-10% of natal and neonatal teeth are supernumerary. The most common locations for natal and neonatal teeth are: mandibular central incisors (85%), maxillary incisors (11%), mandibular cuspids or molars (3%), maxillary cuspids or molars (1%). There is possibly a hereditary trait as 8-62% of cases have family history of natal or neonatal teeth. Predisposing factors include endocrine disturbance resulting from pituitary, thyroid, and gonads. Additionally, excessive or increased resorption of overlying bone can result in early eruption of the natal or neonatal teeth. Poor maternal health, endocrine disturbances, febrile episodes during pregnancy, and congenital syphilis are some of the contributing pre-disposing factors for the occurrence of natal and neonatal teeth suggested in the literature. Some craniofacial anomalies and syndromes have been shown to be associated with natal and neonatal teeth including: Ellis-Van Creveld (Chondroectodermal dysplasia, Pierre-Robin Sequence, Cleft Lip and Palate, Ectodermal Dysplasia, Craniofacial Dysostosis, Van der Woude, Down Syndrome

Upper Teeth		Erupt	Shed
Central incisor		8-12 mos.	6-7 yrs.
Lateral incisor		9-13 mos.	7-8 yrs.
Canine (cuspid)		16-22 mos.	10-12 yrs.
First molar		13-19 mos.	9-11 yrs.
Second molar		25-33 mos.	10-12 yrs.
Lower Teeth		Erupt	Shed
Second molar		23-31 mos.	10-12 yrs.
First molar		14-18 mos.	9-11 yrs.
Canine (cuspid)		17-23 mos.	9-12 yrs.
Lateral incisor		10-16 mos.	7-8 yrs.
Central incisor		6-10 mos.	6-7 yrs.

RADIOGRAPHIC PRESENTATION



Teeth B C D E



Teeth F G H I



Teeth R Q N M

CLINICAL PRESENTATION



HISTIOLOGIC AND CLINICAL PRESENTATION

Early eruption is associated with abnormal mineralization of enamel. The majority of natal teeth have dysplastic or hypomineralizrd enamel, irregular dentin or osteodentin in the cervical portions and interglobular dentin in the coronal region. Hertwig's root sheath and cementum is generally absent. Increased number of dilated blood vessels in the pulpal tissue cause color changes. Natal teeth can be variable in size and shape ranging from small, conical, but may also resemble normal teeth. Morphology is dependent on degree of maturity – generally loose, small, discolored, and hypoplastic and exhibit brown-yellowish/whitish-opaque coloring. Teeth are generally very mobile and pose an aspiration risk. They can also degenerate Hertwig's root sheath which results in further incomplete root development and stabilization.

TREATMENT AND IMPLICATIONS

Extraction is most common treatment option. When possible, natal/neonatal teeth extraction should be deferred after the child is 10 days of age or more, in order to allow the normal flora of the intestine to produce vitamin K, an essential factor for prothrombin production in the liver, to decrease risk of hemorrhage. Teeth that have less than 1mm mobility can be monitored, generally they will continue developing! Complications of leaving neonatal teeth to be monitored include aspiration risk, Riga-Fede, injury to mother's breast and inability to suction during breast feeding, and poor infantile weight gain. Extraction should be followed with gentle curettage of the socket to remove the underlying dental papilla and Hertwig's epithelial root sheath [34]. Failure to curette the socket may cause an ongoing development of the cells of the dental papilla, which may result in eruption of tooth-like structures several months later The risk of residual tooth formation is approximately 9.1%. In these cases if this residual tooth formation develops, a second surgical procedure is required

For this case, it was determined that Teeth B, I, O, P were to be extracted based on potential aspiration risk and mother's discomfort while feeding. Verbal consent was obtained from mom. Extracted Teeth B, I, O, P via gauze and curette. Cured all sockets thoroughly to remove follicles. Ideal follow up would include 6 month recall increments to ensure patient is maintaining adequate oral hygiene status, assessing regions of extracted teeth for continued development of follicle, and monitor space loss potential.

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