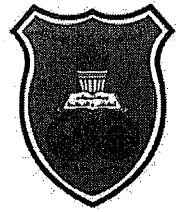


University of Jordan

Faculty of Dentistry

5th year (2015-2016)



Pediatric 2



Sheet

Slide

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Lec 9

ERUPTION DISTURBANCES

Outline

- ❑ Premature eruption of teeth: natal teeth
- ❑ Early loss of primary teeth
- ❑ Delayed loss of primary teeth
- ❑ Delayed eruption of permanent teeth

Natal and Neonatal teeth

- ❑ Definition
- ❑ Incidence: 1:2,000 to 1:3,500 live births
- ❑ Location: mandibular central incisor region

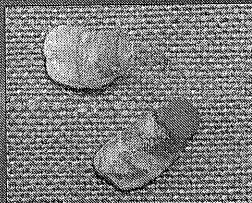


Natal and Neonatal teeth

- ❑ Etiology: multifactorial and not exactly known
 - Inherited (AD trait)
 - Endocrine disturbances
 - Infection
 - Trauma
 - Environmental toxins
 - Superficial position of tooth germ

Natal and Neonatal teeth

- ❑ Associated syndromes:
 - Cleft lip and palate
- ❑ Less than 10% of natal teeth are supernumerary
- ❑ Resemble primary teeth, but often smaller and hypoplastic with poor or absent root development



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Natal and Neonatal teeth

- ❑ Problems
 - Discomfort during suckling
 - Laceration of the mother's breasts
 - Sublingual ulceration (Riga-Fede disease)
 - Aspiration of the teeth (mobility)



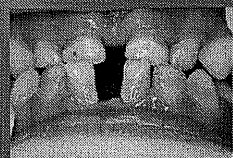
- ❑ Management

Early loss of primary teeth

- ❑ Exfoliation in children younger than 5 and especially in those younger than 3
- ❑ Genetic or systemic disease should be suspected

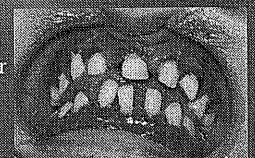
Early loss of primary teeth

- ❑ Acute neonatal osteomyelitis of the bone
- ❑ Acrodynia "pink disease"
- ❑ Hypophosphatasia
- ❑ Neutropenia



Early loss of primary teeth

- ❑ Langerhans Cell Histocytosis 'LCH'
- ❑ Papillon-Lefevre Syndrome "Palmoplantar Hyperkeratosis"

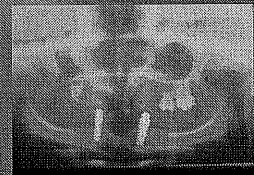
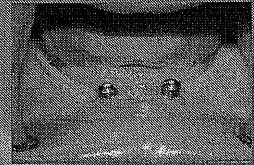


Early loss of primary teeth management

- Depends on the disorder
- Early loss due to periodontal problems can be managed by extraction of primary teeth and systemic antibiotic therapy

Early loss of primary teeth management

- Placement of implants when the period of growth has ceased to prevent infraocclusion of the ankylosed implant
- Earlier placement of implants is possible in children with no teeth (anodontia)



Delayed loss of primary teeth

- Cleidocranial dysplasia
- Down syndrome
- Congenital hypothyroidism
- Hypopituitarism



Delayed eruption of permanent teeth

- *Eruption* is the developmental process responsible for moving a tooth from its crypt position through the alveolar process into the oral cavity to its final position of occlusion with its antagonist
- It is a dynamic process that encompasses completion of root development, establishment of the periodontium, and maintenance of a functional occlusion (Nolla CM, 1960)

- Eruption is both a developmental process, bringing an erupting tooth into its functional position, and an adaptive process, maintaining occlusal vertical dimension following wear
- Primary eruption appears to be controlled by the secretion of growth and thyroid hormones
- The dental follicle, from which the periodontal ligament is derived, is essential to the eruptive process
- Both bone resorption and deposition are mediated by various molecules that recruit osteoclasts and osteoblasts

(Craddock and Youngson, 2004)

Delayed eruption of permanent teeth

- **Chronologic delayed eruption:** eruption time that is greater than 2 SDs from the mean expected eruption time for a specific tooth
- **Delayed Biologic eruption:** tooth eruption that has not occurred despite the formation of 2/3 or more of the dental root

Surri et al., 2004

