IAPD
International Association of Paediatric Dentistry

Paediatric Periodontal Disease: Foundational Articles and Recommendations

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Background

It is paramount for pediatric dentists to assess their patients' gingival and periodontal health. It is not uncommon to diagnose gingivitis in pediatric patients primarily due to poor oral hygiene. However, there are children that may present with refractory generalized severe gingivitis, unexplained tooth mobility and/or alveolar bone loss. These children need to be followed with thorough documentation, clinical photographs and dental radiographs, and when necessary referred to medical providers to evaluate for systemic causes such as neutrophil qualitative/quantitative defects, leukemias, hypophosphatasia, Langerhan Cell Histiocytosis X and Papillon-Lefèvre Syndrome.

IAPD Recommendations

1. Every dental examination include documentation of the health of the gingiva, periodontium and tooth mobility. Once the permanent dentition is established, dental examinations may include probing to confirm healthy alveolar bone levels. Appropriate dental radiographs are an adjunct to document the health of the alveolus; clinical photographs are helpful in documenting and monitoring the periodontal condition.

Consensus-based statement › Global agreement 94%

2. Poor oral hygiene or viral origin should be considered as the etiology for generalized gingivitis. If the generalized gingivitis with improved oral hygiene persists beyond two weeks, a non-viral systemic cause may be considered.

Consensus-based statement › Global agreement 88%

3. Differential diagnosis of persistent, severe gingivitis should include appropriate medical referral to evaluate for cyclic neutropenia, chronic idiopathic neutropenia and leukemias.

Consensus-based statement › Global agreement 88%

4. To assist in triaging a child with the presentation of pediatric periodontal disease, the Keels-Quinonez Pediatric Periodontal Matrix may be used to aid in identifying the diagnosis.

Consensus-based statement › Global agreement 75%

5. A child with unexplained premature loss of a primary incisors prior to age 4 should be evaluated for hypophosphatasia.

Consensus-based statement › Global agreement 85%

6. An infant with a natal or neonatal molars should be evaluated for Langerhans Cell Histiocytosis X.

Consensus-based statement › Global agreement 62%

7. A child with persistent gingival inflammation beyond two weeks, may require periodontal culturing

to help evaluate anaerobic strains of bacteria that may be triggering an aggressive immune response, such as in Papillon-Lefèvre Syndrome or contributing to the inflammation and bone loss as in the neutropenias.

Consensus-based statement › Global agreement 81%

8. Monitoring the gingival and periodontal health of patients with a diagnosis of systemic disease is a critical marker for compliance, as well as effectiveness of any medication used to enhance the immune response.

Consensus-based statement › Global agreement 88%

Pediatric Periodontal Disease Matrix

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	Healthy Bone (no alveolar bone loss)	**Diseased Bone (alveolar bone loss)**
Healthy Gingiva (pink, firm, stippled)	**Healthy gingiva and no bone loss**	**Healthy gingiva and bone loss** Hypophosphatasia** Inconclusive Pediatric Periodontal Disease (LJP)* Dentin Dysplasia Type I Post Avulsion / Extraction
Diseased Gingiva (erythematous, hemorrhagic)	**Unhealthy gingiva and no bone loss** Gingivitis Eruption related gingivitis Factitial Injury Mouthbreating Gingivitis Minimally attached gingival Gingival Fibromatosis Herpetic Gingivostomatitis ANUG Thrombocytopenia Leukemia (AML / ALL) Aplastic anemia HIV Acrodynia Vitamin C deficiency Vitamin K deficiency	**Unhealthy gingival and bone loss** Neutrophil quantitative defect: (agranulocytosis, cyclic neutropenia,chronic idiopathic neutropenia)* Neutrophil qualitative defect: (Leukocyte adhesion deficiency)* Inconclusive Pediatric Periodontal Disease (LJP)* Langerhan Cell Histiocytosis X*** Papillon-Lefèvre Syndrome* Diabetes Mellitus* Down Syndrome* Chédiak-Higashi Syndrome* Chronic Granulomatous Disease* Tuberculosis* Ehlers-Danlos (Type VIII)* Osteomyelitis*

* bacteriological culture and sensitivity needed ** tooth biopsy needed *** gingival biopsy needed

How to cite: IAPD Foundational Articles and Consensus Recommendations: Paediatric Periodontal Disease, 2022. http://www.iapdworld.org/2022_20_paediatric-periodontal-disease.