Paediatric Periodontal Disease: Foundational Articles and Recommendations


Keels MA, Quinonez RB. Pediatric Periodontal Disease Matrix. 2002. (Figure below)


**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 cultivating
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%