



Oral Health Care to HIV-Infected Children

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Commentary

The existence of one or more oral lesions is among the first manifestations in children with acquired immunodeficiency syndrome (AIDS). Moreover, oral candidiasis and oral hairy leukoplakia are predictors of AIDS evolution and are related with CD4+ T-lymphocyte cell count <200 cells/ μ L [1].

The prevalence of oral lesions in human immunodeficiency virus (HIV)-infected children in developed countries is equivalent to 72%, meanwhile in developing countries it equates to 60%. For this reason health professionals should identify and treat the numerous oral manifestations in HIV-infected children. There are several oral lesions that could be present in HIV-infected children [2] (Table 1). However, the prevalence of oral lesions is considerably lower in children on highly active antiretroviral treatment (HAART) as compared to their equivalents not on HAART [3].

In regards to caries problems in children with HIV, the problem increases as the CD4 counts decreases; however, in HIV-infected children taking HAART, the rate of decay is less associated with patients not receiving HAART [4]. Furthermore, clinicians must know the side effects on their oral health of drug taken; the CD3+ + CD4+ T-lymphocyte amount and proportion; and to solicit supplementary laboratory examinations including hepatitis, herpes, varicella zoster and papillomavirus with the purpose to offer secure management for HIV-infected children [5].

In general dental practice, children with AIDS disease in stage 2, to stage 3 or 4 (Table 1) according to the American Academy of Pediatrics Dentistry and World Health Organization classification (CD4 amounts), patients with absolute neutrophil count below 1,500/mm³ and/or with deranged liver functions tests will need antibiotic prophylaxis. Another important aspect is that patients with low platelet quantities (10,000-

Table 1: Oral manifestations in HIV-infected children and CD4 amounts in relation to the gravity of immunosuppression

Type of lesion	CD4 levels
Angular cheilitis	Age 1-5
Aphthous stomatitis	Category 1: 1000 cells/ μ L (>25%)
Cervical lymphadenopathy	Category 2: 500-999 cells/ μ L (15-24%)
Cheilitis	Category 3: <500 cells/ μ L (<15%)
Dental caries*	
Herpes simple lesion	Age 6-12
Erythema gingival banding	Category 1: >500 cells/ μ L (>25%)
Gingivitis*	Category 2: 200-499 cells/ μ L (15-24%)
*Marginal gingivitis	Category 3: <200 cells/ μ L (<15%)
Lineal gingival erythema	
Necrotizing periodontal disease	Age > 12
Oral candidiasis** (pseudomembranous, erythematous)	Category 1: >500 cells/ μ L (>25%)
Oral hairy leukoplakia**	Category 2: 350 – 499 cells/ μ L (20-24%)
Oral Kaposi's sarcoma	Category 3: 200 – 349 cells/ μ L (15-19%)
Orofacial molluscum contagiosum	Category 4: <200 cells/ μ L (<15%)
Orofacial warts	
Periodontitis	
Persistent herpes simplex	
Recurrent aphthous ulceration	
Salivary gland illness (Parotitis, xerostomia)	
Thrombocytopenia troubles (hematoma, petechiae, purpura, bleeding)	
Tonsillar hyperplasia	
Varicella-zoster infection	

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Table 2: General recommendations for treatment planning and prevention

Treatment planning
● Medical history
● Dental history
● Radiographs
● Drug and laboratory prescriptions
● A sequenced treatment plan
Prevention
● Oral hygiene
● AIDS education
● Sexual education
● Measures to protect blood supply safety
● Primary prevention among pregnant women
● Voluntary testing
● Public education to avoid discrimination

30,000/ μ L) require a platelet transfusion prior to surgical procedures [5].

Oral problems have an undesirable influence on the nutritional health status of HIV-infected children by decreasing food intake as a consequence of pain during ingestion as these patients have one or more oral manifestations. Malnutrition predisposes to periodontal disease, candidiasis and xerostomia.

To provide safe care for HIV-infected children, clinicians must know essential recommendations for treatment planning and prevention (Table 2). Managing for these HIV-infected children requires close synchronization between the dentist, the pediatrician, the nutritionist and the child's parents or tutors. Preserving satisfactory oral health through prevention associated with suitable treatment makes it feasible to maintain general health in these children.

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