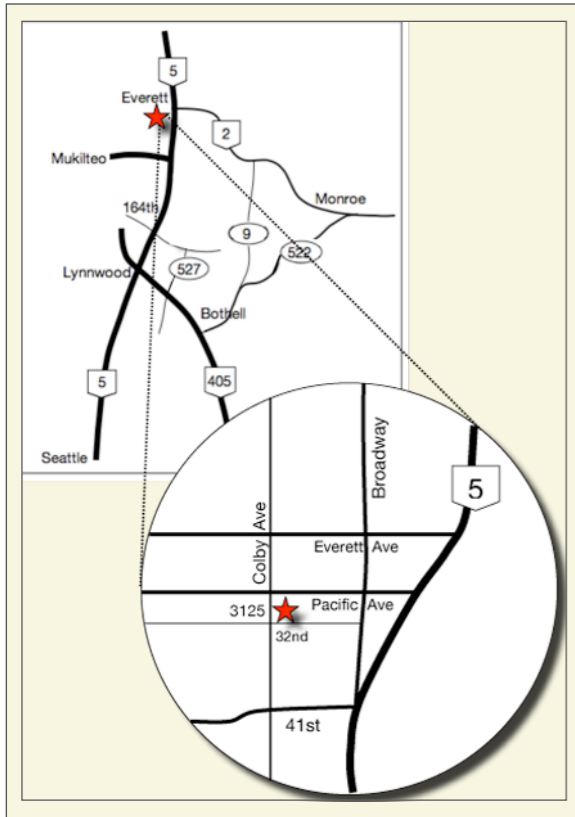


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DISEASE IN YOUNG PATIENTS

Children and adolescents are not immune to the destructive processes of periodontal diseases. Although the prevalence of chronic disease is generally lower in children (age 5-11) and adolescents (age 12-17) than it is in adults (only 0.2% to 0.5% compared to 20% in adults), it is still very important to recognize the disease as early as possible in order to limit the amount of destruction and secure the greatest benefits from early treatment, particularly in more aggressive forms of the disease. Because early diagnosis ensures the greatest chance for successful treatment, bitewings should be used as a screening for interproximal bone loss and signs of periodontitis. Full mouth probing should occur if there is suspicion of disease, as well as considering referral to a periodontist. Referral to a physician for evaluation of systemic health is also recommended.

This issue of Probe Tips will focus on the diagnosis and treatment of periodontitis in a very important population: Children and Adolescents.

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PROBE TIPS

A QUARTERLY PERIODONTAL
NEWSLETTER

BY PAMELA NICOARA DDS MSD

Periodontitis in
Children and Adolescents

VOLUME 2, No. 4

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GENERAL CONSIDERATIONS

The same periodontal diseases which are well known to occur in approximately 20% of the adult population can also affect children and adolescents. The prevalence is generally lesser in the young, but in some cases is more prevalent in younger populations than in adult populations. There are 5 main disease processes that can affect younger patients:

1. Gingivitis
2. Chronic Periodontitis
3. Aggressive Periodontitis
4. Periodontitis as a manifestation of systemic disease
5. Necrotizing Periodontal Diseases

Similarly to the disease in adults, there are certain risk factors which can increase the risk of developing disease in the young. These risk factors can be divided into systemic and local factors:

Systemic Factors

1. Hormones
2. Medications (i.e.: anti-epileptics, cyclosporin)
3. Systemic Disease (diabetes, immune disorders, etc)
4. Smoking
5. Others (malnutrition, low SES, genetics)

Local Factors

1. Dental restorations (overhangs, open margins)
2. Plaque/Calculus, Mouth breathing
3. Orthodontic appliances
4. Tooth malposition
5. Tooth anomaly (enamel projections/ pearls, etc)

Periodontal Diseases in Children and Adolescents

GINGIVITIS

Prevalence: Widespread and nearly universal in the young.

Important Facts: Reversible.

General Causes: Poor oral hygiene and Puberty (significant increase in hormones).

Treatment: Non-surgical therapy (prophylaxis) and improved personal oral hygiene.

Prognosis: Respond well to treatment.

circumpubertal, but bone loss around primary teeth indicate early signs of the disease.



CHRONIC PERIODONTITIS

Prevalence: Generally rare and more common in adults than in the young.

Important Facts: Irreversible bone loss, can occur during or immediately after eruption of the primary teeth.



General Causes:

Generalized plaque and calculus.

Treatment:

Non-surgical therapy (scaling and root planing).

Prognosis: Usually respond well to therapy.

General Causes: Associated with phagocyte or immunoglobulin abnormalities.

Treatment: Non-surgical therapy (scaling and root planing) and systemic and/or local antibiotic therapy.

Prognosis: Response to treatment varies depending on genetic susceptibility to periodontal pathogens and degree of severity of immunological abnormalities.

PERIODONTITIS AS A MANIFESTATION OF SYSTEMIC DISEASE

Prevalence: Rare.

Important Facts: Irreversible, begins with eruption of the primary teeth. Localized and generalized forms with marked gingival inflammation.

General Causes: Generally related to systemic immune disease (Papillon-Lefevre syndrome, hypophosphatasia, cyclic neutropenia, agranulocytosis, Downs Syndrome, and leukocyte adhesion deficiency) rather than poor oral hygiene, associated with other disease manifestations than simply periodontitis (i.e.: pseudomembranous candidiasis, severe recurrent non-oral infections).

Treatment: Non-surgical therapy (scaling and root planing) and systemic and/or local antibiotic therapy.

Prognosis: Treatment success is low unless underlying systemic cause can be managed, and teeth are often extracted.

NECROTIZING PERIODONTAL DISEASES

Prevalence: Generally rare, and rarely occurring before adolescence in industrialized countries.

Important Facts: Reversible, characterized by pain, spontaneous bleeding, necrotic ulceration, pseudomembrane, swelling of lymph nodes, fetid odor, fever and malaise.



General Causes:

Poor oral hygiene, puberty, malnutrition, stress, and viral infection or systemic illness.

Treatment: Non-surgical therapy (scaling and root planing especially with ultrasonic devices) and improved personal oral hygiene.

Prognosis: Generally respond well to treatment, particularly when other factors (stress, nutrition) are well controlled.

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