

Parameter on Aggressive Periodontitis*

The American Academy of Periodontology has developed the following parameter on the treatment of aggressive periodontitis. Patients should be informed of the disease process, therapeutic alternatives, potential complications, expected results, and their responsibility in treatment. Consequences of no treatment should be explained. Failure to treat aggressive periodontitis appropriately can result in progressive and often rapid loss of periodontal supporting tissues. This may have an adverse effect upon prognosis and could result in tooth loss. Given this information, patients (or their parents or guardians, as appropriate) should then be able to make informed decisions regarding their periodontal therapy. J Periodontol 2000;71:867-869.

KEY WORDS

Disease progression; health education, dental; periodontal diseases/therapy; risk factors; patient care planning.

CLINICAL DIAGNOSIS

Definition

Aggressive periodontitis encompasses distinct types of periodontitis that affect people who, in most cases, otherwise appear healthy. It tends to have a familial aggregation and there is a rapid rate of disease progression. Aggressive periodontitis occurs in localized and generalized forms.

Clinical Features

Some secondary features of aggressive periodontitis that are generally, but not universally, present are: 1) amounts of microbial deposits are inconsistent with the severity of periodontal tissue destruction and 2) the progression of attachment and bone loss may be self-arresting.

Localized aggressive periodontitis usually has a circumpubertal onset with periodontal damage being localized to permanent first molars and incisors. However, atypical patterns of affected teeth are possible. The disease is frequently associated with the periodontal pathogen *Actinobacillus actinomycetemcomitans* and neutrophil function abnormalities. A robust serum antibody response to infecting agents is frequently detected.

Generalized aggressive periodontitis usually affects people under 30 years of age, but patients may be older. There is generalized interproximal attachment loss affecting at least 3 permanent teeth other than

the first molars and incisors. Attachment loss occurs in pronounced episodic periods of destruction. The disease is frequently associated with the periodontal pathogens *Actinobacillus actinomycetemcomitans* and *Porphyromonas gingivalis* and neutrophil function abnormalities. A poor serum antibody response to infecting agents is frequently detected.

Therapeutic Goals

The goals of periodontal therapy are to alter or eliminate the microbial etiology and contributing risk factors for periodontitis, thereby arresting the progression of disease and preserving the dentition in comfort, function, and appropriate esthetics and to prevent the recurrence of disease. In addition, regeneration of the periodontal attachment apparatus, where indicated, may be attempted. Due to the complexity of the aggressive periodontal diseases with regard to systemic factors, immune defects, and the microbial flora, control of disease may not be possible in all instances. In such cases, a reasonable treatment objective is to slow the progression of the disease (Parameter on "Refractory" Periodontitis, pages 859-860).

Treatment Considerations

In general, treatment methods for the aggressive periodontal diseases may be similar to those used for chronic periodontitis (Parameter on Chronic Periodontitis With Advanced Loss of Periodontal Support, pages 856-858). These methods should include oral hygiene instruction and reinforcement and evaluation of the patient's plaque control; supra- and subgin-

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gival scaling and root planing to remove microbial plaque and calculus; control of other local factors; occlusal therapy as necessary; periodontal surgery as necessary; and periodontal maintenance.

In addition to the parameters for chronic periodontitis, the following should be considered for patients who have aggressive periodontitis:

1. A general medical evaluation may determine if systemic disease is present in children and young adults who exhibit severe periodontitis, particularly if aggressive periodontitis appears to be resistant to therapy. Consultation with the patient's physician may be indicated to coordinate medical care in conjunction with periodontal therapy. Modification of environmental risk factors should be considered.

2. Initial periodontal therapy alone is often ineffective. However, in the early stages of disease, lesions may be treated with adjunctive antimicrobial therapy combined with scaling and root planing with or without surgical therapy. Microbiological identification and antibiotic sensitivity testing may be considered. In very young patients, the use of tetracyclines may be contraindicated due to the possibility of staining of teeth. Alternative antimicrobial agents or delivery systems may be considered.

3. The long-term outcome may depend upon patient compliance and delivery of periodontal maintenance at appropriate intervals, as determined by the clinician (see Parameter on Periodontal Maintenance, pages 849-850). If primary teeth are affected, eruption of permanent teeth should be monitored to detect possible attachment loss.

4. Due to the potential familial nature of aggressive diseases, evaluation and counseling of family members may be indicated.

Outcomes Assessment

The desired outcomes of periodontal therapy in patients with aggressive periodontitis should include:

1. Significant reduction of clinical signs of gingival inflammation;
2. Reduction of probing depths;
3. Stabilization or gain of clinical attachment;
4. Radiographic evidence of resolution of osseous lesions;
5. Progress toward occlusal stability;
6. Progress toward the reduction of clinically detectable plaque to a level compatible with periodontal health.

Areas where the periodontal condition does not resolve may occur and be characterized by the presence of:

1. Persistent gingival inflammation;
2. Persistent or increasing probing depths;
3. Progressive loss of clinical attachment;
4. Persistent clinically detectable plaque levels not compatible with periodontal health;
5. Increasing tooth mobility.

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