Position Statement and Guidelines for Soft Tissue Management Programs*

Abstract

The term soft tissue management is often used as a synonym for non-surgical periodontal therapy. Soft tissue management can be effective in arresting periodontal destruction. However, in some patients non-surgical therapy will be inadequate to eliminate inflammation and arrest disease progression. Therefore, patients, especially those with advanced periodontitis, should be informed of the potential shortcomings of non-surgical therapy. Furthermore, practitioners should detect non-surgical treatment failures early so that definitive therapy can be implemented.

The American Academy of Periodontology supports utilization of various approaches to non-surgical therapy as an integral facet of periodontal treatment. However, patient care may be compromised when limitations of non-surgical therapy are not recognized and treatment goals are not clearly defined. The Academy is aware that university-conducted clinical trials often are cited to support the effectiveness of non-surgical treatment. However, these trials should be interpreted with respect to their practical application by clinicians, since administered treatment may not reflect care actually provided in diverse practice settings.

To clarify misunderstandings associated with soft tissue management programs, the following topics are addressed: definition of soft tissue management; goals of periodontal therapy; limitations of non-surgical therapy; and outcome assessments of periodontal treatment.

Definition of Soft Tissue Management

The term soft tissue management is usually used to denote the administration of non-surgical therapy to patients undergoing active treatment for some form of periodontal disease. This therapv may consist of various combinations of the following procedures: oral hygiene instructions, manual and/or mechanical scaling and root planing, delivery of local and/or systemic chemotherapeutic agents, and elimination of contributing factors (e.g., amalgam overhangs).

Since instrumentation of the crown and root surfaces is the critical determinant for successful therapy, it will be the main focus of this position statement. In this regard, non-surgical therapy may resolve inflammation and arrest disease progression in periodontitis patients with early periodontal attachment loss, thereby providing definitive treatment. In other patients, such therapy can help reduce but will not resolve periodontal inflammatory disease. In these situations, surgical therapy, which may include resective and/or periodontal regenerative procedures, may be indicated.

Goals of Periodontal Therapy

The goal of periodontal therapy is to preserve the dentition in a state of health, comfort, and function with appropriate esthetics. Treatment should alter or eliminate putative pathogens and contributing risks factors, resolve inflammation, arrest disease progression, and create an environment that deters recurrent disease. In addition, regeneration of the periodontium may be attempted where indicated.

Limitations of Non-Surgical Therapy

Understanding the limitations of non-surgical therapy helps to place in perspective its ability to predictably achieve the goals of periodontal treatment. In this regard, clinical trials that provide the perception that non-surgical treatment is as effective as surgery raise issues that warrant discussion. A critical question is whether results of root planing often performed by experts for 10 or more minutes per tooth reflect the standard of care in different practice environments. Additionally, these results are usually achieved in a university setting on subjects who frequently had entry requirements (e.g., low plaque levels) and often underwent multiple recall visits during the early phases of therapy. Since these conditions are often not present in other practice settings, it can be surmised that clinical trials indicate probable outcomes under standardized conditions with therapists of similar training. Therefore, data from clinical trials must be cautiously extrapolated to private patient management.

Shortcomings of statistical assessments used during clinical trials may provide erroneous impressions regarding the efficacy of non-surgical therapy at sites with deep pockets. The statistical tests often do not have adequate power to detect differences between therapies at deep sites, because too few deep pockets are included in the studies. Furthermore, when results from all teeth are reported as means, there is a “washing out” effect regarding the utility of surgery at deep pockets and large changes at a small numbers of sites may not be detected.

Before root planing is selected as the definitive mode of treatment, clinicians must assess the severity of the periodontal condition and critically appraise their ability to meticulously cleanse the root surface associated with deep pockets. It needs to be emphasized that root planing is one of the most demanding skills in dentistry and there are differences in skill levels among therapists. Furtherrnore, clinicians frequently

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fail to purge roots of plaque and calculus when pockets exceed 5 mm or where root anomalies or furcations exist. Therefore, scaling and root planing may not resolve inflammation and may not adequately provide access for definitive root instrumentation.

Another concern regarding non-surgical procedures is the negative impact of leaving many deep probing depths after therapy. Root planing can result in a gain of clinical attachment, but it remains an unpredictable procedure for pocket reduction. In general, when comparing the benefits of shallow versus deep probing depths after treatment, it is preferable to have shallow probing depths for the following reasons:

1. Deep probing depths are technically more difficult to clean and may require extended chairside time;

2. Bleeding upon probing occurs more often at deep sites;

3. Deep sites frequently contain more putative pathogens and provide an environment facilitating proliferation of anaerobes;

4. Deep probing depths are more difficult to monitor during maintenance and are associated with more measurement errors;

5. Supragingival hygiene has the potential to affect the flora in shallow sites, but not in deep sites; and

6. Studies have indicated that the percentage of deep sites manifesting disease progression is greater than in shallow sites.

Finally, non-surgical procedures result in development of a long junctional epithelium and limited bone deposition, similar to routine flap procedures. In contrast, if the goal of treatment is to restore lost periodontium, then surgery employing guided tissue regeneration and/or bone grafts can be used to try to induce new connective tissue attachment, bone, and cementum.

Outcomes Assessments of Periodontal Treatment

Periodontal treatment should be evaluated with regard to its ability to achieve the goals of therapy. The desired outcome for individuals with gingivitis is resolution of gingival inflammation. Non-surgical therapy is effective at achieving this goal. For periodontal patients with moderate to advanced periodontal attachment loss, the desired outcomes are as follows: significant resolution of clinical signs of inflammation and probing depths, stabilization or gain of clinical attachment, radiographic resolution of osseous defects, occlusal stability, and reduction of detectable plaque to a level associated with gingival health. In reference to these objectives, non-surgical therapy is an essential part of periodontal therapy and should be used as long as it attains satisfactory results. However, surgical therapy should be considered when non-surgical therapy is unsuccessful or incapable of achieving desired outcomes. Ultimately, it is critical that clinicians reevaluate their patients after therapy to determine if the goals of treatment were achieved and subsequently to assess if results are being maintained.