SUPPORTIVE PERIODONTAL THERAPY

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ABSTRACT

Supportive periodontal therapy is performed at certain intervalsso as to reduce the disease progressionand to assist the patient in maintaining oral health.A thorough evaluation of the periodontal condition is necessary inorder to remove the persisting subgingival deposits. Patients with mild gingivitis are being recalled twice in a year where as periodontitis patients are recalled within three months after completing scaling and rootplaning.This treatment evolved from traditional dental prophylaxis and now emphasizes treatment of areas of previous attachment loss and areas where clinical signs of inflammation are found.

Keywords: Maintenance Therapy, Periodontitis, Supportive Periodontal Therapy.

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Introduction

Periodontitis is a multifactorial disease and can be treated effectively using nonsurgical and surgical periodontal therapy.[1]However in some situations subgingival plaque is left behind and it regrows within the pocket and causes inflammation. Inorder to establish conditions that are conducive to future optimal plaque control and to prevent subgingival bacterial growth a regular program of clinical revaluation is essential.[2] The maintenance of periodontal health requires considerable effort from both the patient and dental team. Thus, following the completion of active therapy, most patients need professional assistance at regular intervals for maintaining a proper oral hygiene. It involves improved motivation and instruction for oral hygiene, elimination of calculus and other plaque retentive factors and thorough professional cleaning of teeth. Such professional assistance has been termed as maintenance therapy, maintenance care, periodontal maintenance, periodontal recall, maintenance care or supportive periodontal therapy(SPT)[3]. These procedures are performed at selected intervals to assist the periodontal patient in maintaining oral health. The maintenance phase of periodontal treatment starts immediately after the completion of Phase I therapy.

Objectives and Therapeutic Goals

The main objective of supportive periodontal therapy (SPT) is to support the results of the initial therapy through a periodic professional recall system and maintenance of optimal plaque control, supragingivally and subgingivally, as well as to find out and remove irritants that were not eliminated during the treatment and healing phase.

The therapeutic objectives of supportive periodontal therapy are:

- To arrest the progression and recurrence of periodontal disease in patients who have previously been treated for gingivitis and periodontitis.
- To prevent the loss of dental implants after clinical stability has been achieved.
- To diminish tooth loss my monitoring the dentition and any prosthetic replacements of the natural teeth; and
- To identify and manage, in a timely manner, other diseases or conditions found within or related to the oral cavity.[4,5.]

Types of SPT

Preventive SPT -designed to prevent the inception of disease in individuals without periodontal pathosis.

Trial SPT-designed to maintain border line periodontal conditions over a period to assess the need for corrective therapy for problems-inadequate gingiva, gingival architectural defects, furcation defects, while maintaining periodontal health.

Compromise SPT- designed to slow the progression of disease in patients for whom periodontal corrective therapy is indicated, but cannot be implemented for reasons of health, economics, inadequate oral hygiene, or other considerations

Post treatment SPT- designed to prevent the recurrence of disease and maintain the periodontal health achieved during therapy.[6]

Rationale of SPT

Occasionally lesions may recur due to inadequate plaque control, failure of the patient to return for periodical checkups, presence of any uncontrolled systemic disease that may affect host resistance and inadequate restorations. Properly performed SPT can evaluate and correct all these factors thereby preventing further periodontal breakdown. So patients with a history of periodontitis usually require periodic SPT since personal supragingival oral hygiene alone has not been shown to control attachment loss in them.[2]

Clinical Diagnosis of SPT

The patient's risk assessment for recurrence of periodontitis may be measured on the basis of a number of clinical conditions in which both the risk factors and risk indicators are also evaluated. It includes bleeding on probing, residual pockets

greater than 4mm,bone loss, furcation involvement, crowding, malposition of tooth, iatrogenic factors, systemic diseases, genetic conditions and environmental factors. A risk assessment at subject, tooth and site level may be useful in evaluating the prognosis of periodontal disease activity and determining periodontal stability and may indicate the need for specific therapeutic measures during SPT visits[7]. A high risk patient has got increased chance of recurrence of disease[8].

Frequency of SPT

Numerous studies have shown that less attachment loss occurs, and fewer teeth are lost when patients maintain regular SPT. Patients with suboptimal plaque control and/or concomitant high prevalence of bleeding sites should be recalled more frequently than patients exhibiting excellent plaque control and healthy gingival tissues. Patients with healthy gingival conditions, but with a severely reduced height of periodontal support, should also be recalled with short time intervals (not exceeding 3-4 months) in order to exclude or at least reduce the risk of additional tooth loss.[9] It seems reasonable to commence post-therapeutic maintenance with recall visits once every 3-4 months and then shorten or prolong these intervals in accordance with the other aspects.[5]

Recall Intervals for various classes of recall patient has been included in Table 1.

Compliance with Supportive Periodontal Schedule

If patients fail to practice effective plaque removal and keep recall appointments, recurrence and progression of disease will occur despite the best efforts of periodontal therapists.[10] Both prospective and retrospective studies have proved that patients who comply in maintenance therapy are able to maintain periodontal health status, including reduced probing depth, less bleeding on probing, and reduced plaque index. Several patients do not comply due to fear of dental treatment, economic factors, health beliefs and stressful events in their lives.[11]

Effectiveness of SPT

Several studies have documented that periodic professional prophylactic visits in conjunction with reinforcement of personal oral hygiene all effective in controlling gingivitis. Patients presenting with mild to moderate periodontitis, have shown that less attachment loss occurs and fewer teeth are lost when they maintain regular SPT intervals. However, patients seeking SPT less than once per year over 8 year lost further periodontal attachment during the period of observation. Adjunct use of local drug delivery agents have demonstrated significantly more gain of attachment and decrease in mean pocket probing depth among periodontal patients. Patients with implants are susceptible for peri-implantitis and are more prone to plaque induced inflammation with bone loss than those with natural teeth. So patients with oral implants require continuous supervision, evaluation of the soft tissues and interceptive prophylactic measures in the same way as patients with a natural dentition who are susceptible to periodontal disease. After uncovering the implants, patients must use ultrasoft brushes, chemotherapeutic rinses, tartar controlled pastes, irrigation devices and yarn like material to keep implants and natural tooth clean. Only plastic instruments should be used for calculus removal.[12] It is directly clear that some patients should be referred to a specialist, whereas most patients clearly have problems that can be treated by a general dentist. The decision to have the general practitioner treat a patient's periodontal problem should be guided by a consideration of the degree of risk that the patient will lose a tooth or teeth for periodontally related reasons. [13]

Conclusion

All types of Periodontal and Implant Therapy require continous recall visits and periodontal maintenance care because of the constant microbial challenge, and this response must be effective to prevent further tissue damage. Successful periodontal therapy with regular SPT can promote periodontal health and reduce tooth loss. Following active periodontal therapy, an interval is established for

periodic ongoing care. Active periodontal therapy consists of non-surgical and/or surgical treatment. An interval of three months between appointments appears to be an effective treatment schedule, but this can vary depending upon the clinical judgment of the dentist and the disease status of the patient.

Merins Classification 1996	***Characteristics***	***Recall internal***
First year	First year patient routine therapy and uneventful healing or First year patients difficult case with complicated prosthesis, furcation involvement, poor crown to root ratio, or questionable patient co-operation	3 months 1 to 2 month
Class A	Excellent results well maintained for 1 year or more patients displays good oral hygiene, minimum calculus, no occlusal problems, no complicated prosthesis, no remaining pockets, and no teeth with **less than 50% of alveolar bone remaining**	6 months to 1 year
Class B	Generally good results maintained reasonably well for 1 year or more, but patient displays some of the following factors 1. In consistent or poor oral hygiene 2. Heavy calculus formation 3. Systemic disease that predisposes to periodontal breakdown 4. Some remaining pockets. 5. Occlusal problems 6. Complicated prosthesis	3 to 4 months

	7. Ongoing orthodontic treatment 8. Recurrent dental caries 9. Some teeth with less than 50% of alveolar bone support 10. Smoking 11. Positive genetic test.	
Class C	Generally poor results following periodontal therapy and / or several negative factors from the following list : 1. Inconsistent or poor oral hygiene 2. Heavy calculus formation 3. Systemic disease that pre disease to periodontal breakdown 4. Remaining pockets 5. Occlusal problems 6. Complicated prosthesis 7. Recurrent dental caries. 8. Many teeth with less than 50% of alveolar bone support 9. Smoking 10. Positive genetic test 11. Periodontal surgery indicated but not performed for medical, psychologic or financial reasons 12. Conditions too for advanced to be improved by periodontal surgery. 13. More than 20% of pockets bleed on probing	1to 3 months

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