Document heading doi: 10.21276/apjhs.2014.1.2.13 Review Article MASTER YOUR PERIODONTAL PRACTICE: A GUIDE TO GENERAL DENTIST

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ABSTRACT

Periodontology is a fast evolving field where newer insights into existing concepts are changing the face of the traditional periodontal treatment. Constant research is taking place so as to develop a number of newer avenues in the treatment of the periodontal diseases. However, the protocol of management of periodontal diseases in the setup of general dental practice has undergone little change over the last decade. In spite of the development of quality dental institutes, a majority of the population visits private dental clinics for their dental needs, especially in the urban areas. This paper underlines the importance of specialist dental practice.

Key words: Periodontology, General Dentistry, Case Selection.

INTRODUCTION

Periodontology is a fast evolving field where newer insights into existing concepts are changing the face of the traditional periodontal treatment. Constant research is taking place so as to develop a number of newer avenues in the treatment of the periodontal diseases. However, the protocol of management of periodontal diseases in the setup of general dental practice has undergone little change over the last decade. In spite of the development of quality dental institutes, a majority of the population visits private dental clinics for their dental needs, especially in the urban areas.

*Correspondence Dr. Shahabe Saquib A, Lecturer, Department of Periodontology; Yogita Dental College and Hospital, Khed, Ratnagiri, India E-mail: drsaquib24@gmail.com However, it is a common complaint of Periodontist that the knowledge of periodontal diagnosis and treatment in the minds of a general dentist is sometimes limited to the level taught in the BDS curriculum at the time of their graduation. There is a need to evaluate the attitude and perception of the general dental practitioners toward periodontal treatment, as they form the cornerstone of dental practice. Hence, this review article is presented for cases selection and to identify the various aspects of periodontal treatment provided at a general dental clinic, along with referrals to Periodontist.

Case selection and treatment objectives FLAP SURGERY I) Conventional flap surgery Case selection

- 1. Deep pockets more than 5mm which can't be accessed by scaling and root planing.
- 2. Critical probing depth, which is more than 5mm, requires referral to the specialist for the specialized treatment.[1]
- 3. Persistent inflammation and pus discharge from the pocket after scaling and polishing.
- 4. Bone loss appreciated on the radiograph or OPG.



Treatment options available in periodontal therapy



Pocket depth =5mm + Biological width =2mm

> Total=7mm That is more than 50%

Critical probing depth evaluation BW=biological width, AL=attachment loss

Goals achieved b

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- 1. Improve access and visibility to clean off the plaque and calculus.
- 2. Elimination and reduction of the pocket depth.
- 3. Reduction in gingival inflammation and bleeding.
- 4. Healthy and maintainable gingival condition.
- 5. Exposure of the area to perform regenerative surgery.

II) Regenerative flap surgery

Case selection

- 1. Deep periodontal pocket.
- 2. Angular/vertical bone loss on radiograph.
- 3. Endo-perio lesion.
- 4. Deep localized pocket around tooth site.
- 5. Detection of angular defect on radiograph by placing GP point in the pocket

Goals achieved

- 1. Regeneration of alveolar bone.
- 2. Reduction in pocket depth.
- 3. Reduction in tooth mobility.

Concept of biological width and its importance in CLP

4. Reduction in inflammation in bleeding.

Factors affect prognosis

- 1. Non co-operative patient.
- 2. Severe mobility with minimal bone support seen on radiograph.
- 3. Vertical depress-ability.
- 4. Patient with uncontrolled systemic condition.
- 5. Patient with habit of tobacco/gutkha chewing and heavy smokers.

Crown lengthening (CLP) Objectives

- 1. Removal of subgingival caries.
- 2. Preservation and maintenance of restorations.
- 3. Cosmetic improvement.
- 4. Enabling restorative treatment without impinging on biologic width.
- 5. Facilitation of improved oral hygiene.



Observation indicates that impingement of the biologic width will result in bone resorption or, chronic gingival inflammation.

Crown lengthening can be done by two ways

1. Soft tissue removal (gingivectomy)

If the sulcus depth is equals to or more than required crown exposure, in that case only soft tissue removal by doing gingivectomy will provide the desired crown length.

2. Osseous reduction

If the sulcus depth is less than the required crown exposure, in that case only soft tissue removal by doing gingivectomy will not provide the desired crown length. In such cases gingivectomy is followed by flap reflection and osseous reduction to get a desired crown length and to maintain biological width.

Crown lengthening is of two types

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Esthetic crown lengthening

- **1.** Aesthetic crown lengthening is a surgical procedure to help correct a gummy smile or for patients with short teeth.
- 2. Mostly performed in upper anterior region.

Functional crown lengthening

- **1.** Functional crown lengthening is a surgical procedure that recontours the gum tissue and often the underlying bone around a tooth in case of carious or fractured tooth.
- **2.** This is basically to provide sound tooth structure for restoration placement.

Splinting

Splint is an appliance designed to stabilize mobile teeth. Case selection

- **1.** Mobility of grade I or grade II origin, in some cases isolated tooth with grade III.
- **2.** Commonly done in lower anterior followed by upper anterior region.
- 3. Firm anchorage from adjacent tooth is required.
- 4. Periodontal condition should be healthy.
- 5. Occlusion should be stable.

Types

According to the period of stabilization

Temporary: to be worn for less than 6 months. *Provisional:* to be worn for months or several years *Permanent:* used indefinitely.

According to the type of material

Bonded, composite resin button splint

Braided wire splint

According to the location on the tooth

Intracoronal: composite resin with wire, inlays, nylon wire.

Extracoronal: tooth bonded plastic, night guard, welded bands.

Mucogingival/periodontal plastic surgery I] Root coverage procedure

Case selection

- 1. Deep narrow defect
- **2.** Properly aligned teeth
- 3. Tissue should be in healthy condition
- 4. Sufficient thickness of gingiva
- 5. Width of attached gingiva should be adequate
- 6. Bone available in interdental area

II] Surgery to increase width of attached gingiva Case selection

- **1.** Case with inadequate width of attached gingiva
- Around 1-2mm of attached gingiva is supposed to be adequate if patient can maintain it.[2, 3]
 Check for tension test

Methods for plastic surgery

- 1. Pedicle soft tissue graft procedure
 - a. Laterally sliding flap procedure[4].
 - b. Coronally repositioned flap procedure
- 2. Free soft tissue graft procedure
 - a. Epithelialized graft
 - b. Subepithelial connective tissue graft[5]

Endodontic periodontic lesion

Best classified as [6]

- 1. Primary endodontic disease
- 2. Primary periodontal disease
- 3. Combined diseases

Primary endodontic disease

- *Causes:* deep carious lesion, large restoration approximating the pulp, poor root canal treatment.
- *Symptoms:* mobility, localized bone loss, narrow pocket, tenderness to percussion, sinus tract & swelling.
- *Diagnosis:* radiographs, pulpal vitality test, Ttracing of sinus tract & periodontal probing.
- *Treatment:* complete resolution is usually anticipated after conventional endodontic therapy.
- Prognosis: excellent



Primary periodontal disease

- Cause: caused primarily, by periodontal pathogens. In this process, chronic periodontitis progresses apically along the root surface.
- *Symptoms:* mobility, bone loss surrounding the tooth, wide pocket, Non tender to percussion, swelling. There is frequently accumulation of plaque and calculus and the pockets are wider.
- Prognosis: depends upon the stage of periodontal disease and the efficacy of periodontal treatment.

Prognosis: depends on the each individual factor. Adequate root canal therapy resulted in



Combined diseases

- *Characteristics*: once the pulpal and periodontal lesions combines.
- *Diagnosis*: probing, radiographs, pulpal testing.
- *Treatment:* endodontic therapy, periodontal therapy, hemisection, bicuspidization & root amputation.
- resolution of the periapical lesion, prognosis of the affected tooth then depends totally on the outcome of periodontal therapy.



CONCLUSION

A primary goal of periodontal therapy is to reduce the burden of pathogenic bacteria and thereby reduce the potential for progressive inflammation and recurrence of disease. This is best achieved if everyone in the practice setting has a general understanding of the etiology of periodontal diseases, the benefits of treatment, and potential consequences of nontreatment. A general dentist should also be able to evaluate the case, which requires referral to the specialist for periodontal treatment need.

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