

Management of Deep Periodontal Defects Close to the Root Apex with Periodontal Treatment Alone : A Clinical Case Report

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Abstract

Complete removal of calculus is a primary part of achieving a "biologically acceptable" tooth surface in the treatment of Periodontitis. A single episode of scaling did not completely remove subgingival calculus and that the deeper the periodontal pocket, the less complete the calculus removal. The purpose of the present study was to evaluate the effectiveness of scaling relative to calculus removal following reflection of a periodontal flap. Each of 2 patients who required periodontal therapy had undergone SRP following the reflection of a periodontal flap, controls. Local anesthesia was used. Results showed that there was reduction in Probing Pocket depth, Clinical attachment level and recession and tooth were vital.

Keywords: Scaling, root planing, Probing pocket depth, clinical attachment loss.

Introduction

The periodontal-endodontic inter-relationship is a topic of uncertainty. Pulpal changes in a periodontitis affected tooth -

- Hyperemia
- Fibrosis
- Calcification
- Necrosis of pulp

Large areas of peri-apical destruction may still occur without compromising pulpal health¹.

Case-I (Fig 1-4): 50 year old, female patient

Chief Complaint

- Sensitivity to cold fluids.
- Bleeding on brushing.

Clinical Features²

- 10mm deep periodontal pocket in relation to mesial of 44.
- Grade II mobility.
- Tooth gave positive response with electric pulp tester.

Radiographic Features

- Radiograph revealed the base of pocket

lying close to the root apex.

Procedure

- Pre-treatment oral hygiene instructions.
- SRP + chlorhexidine mouth rinse³.
- Restoration of carious teeth.
- Flap surgery 4-6 weeks after phase- I therapy.
- Thorough debridement and root planing.
- Flap closed with non-resorbable 3-0 silk sutures and periodontal pack placed.

| | Pre operative | Postoperative (6 months) |
|---------------|---------------|--------------------------|
| PPD | 10mm | 5mm |
| CAL | 10mm | 7mm |
| Recession | O | 2mm |
| Vitality Test | vital | vital |

Case - II: (Fig 5 7): A 45 year old male patient

Chief Complaint

- Bleeding and pain in relation to lower left back tooth.
- Pain present since 15days, dull and intermittent.
- Aggravated on chewing from the affected side.
- Bleeding on brushing in that area.

Procedure

- Pre-treatment oral hygiene instructions.
- Scaling and Root Planing + chlorhexidine mouthwash.
- Systemic doxycycline.
- Flap surgery after 4-6 weeks.
- The surgical area was thoroughly debrided and roots were planed.

| | Pre operative | Postoperative (6 months) |
|---------------|---------------|--------------------------|
| PPD | 9mm | 4mm |
| CAL | 9mm | 7mm |
| Recession | O | 3mm |
| Vitality Test | vital | vital |

Discussion

- Many studies have described changes in the pulp of a periodontitis affected tooth, none demonstrated that periodontal

disease alone can render the pulp non-vital⁴.

- The satisfactory response of periodontal tissue confirms that lesions close to or involving the apex may not be of pulpal origin.
- Both the cases showed reduction in probing depth, gain in clinical attachment level, improvement in mobility and retained their vitality after the treatment.

Summary & Conclusion

- After periodontal therapy, both the teeth showed good improvement in their periodontal status.
- Neither showed any change in their pulpal status throughout the study period.
- These results suggest that mere presence of radiolucency in the peri-apical area may not indicate the necessity for endodontic treatment of such teeth⁵.

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Legends

1. Fig: 1. Clinical appearance pre-operative.
2. Fig: 2. Pre-operative radiograph.
3. Fig: 3. Clinical appearance post-operative.
4. Fig: 4. Post-operative radiograph.
5. Fig: 5. Pre-operative clinical appearance.
6. Fig: 6. Pre-operative radiograph.
7. Fig: 7. Post-operative radiograph.





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