

# PERIODONTAL REGENERATION IN NONVITAL TEETH - A REVIEW

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## INTRODUCTION

Periodontal therapy has an ultimate goal of predictable regeneration of a periodontium at the site of previous marginal periodontitis. A major factor inhibiting predictable regeneration appears to be the nature of the periodontitis affected root surface. The exposed root surface associated with periodontitis undergoes substantial alterations. Various periodontal treatment modalities are attempted to obtain lost periodontal structures. Numerous studies have been carried out regarding the periodontal regeneration in vital teeth. This review attempts to discuss the periodontal regeneration in nonvital teeth.

## REVIEW OF LITERATURE :

1. Ehnevid H. et al (1993)<sup>1</sup> concluded that a root canal infection, if left untreated may result in retarded periodontal healing following periodontal therapy.
2. Helge Ehnevid et al (1993)<sup>2</sup> showed that healing after scaling and root planing was significantly impaired over time by the presence of a root canal infection.
3. Robert M. Dunlap et al (1981)<sup>3</sup> in an in-vitro study indicated that root canal therapy does not interfere with in-vitro growth of fibroblasts on planed dentin surfaces of endodontically treated teeth.
4. The work of Bjorn, Diem and Mitsis indicates that endodontically obturated teeth should respond to periodontal therapy as do vital teeth.
5. Harrington (1979)<sup>2</sup> reported that periodontal reattachment to the root surface can be inhibited if definitive periodontal therapy is undertaken prior to root canal therapy.
6. Vandana KL, Vandana KV (2002)<sup>4</sup> evaluated the efficacy of regeneration in vital and non vital teeth and concluded that the results were better in non vital teeth group.

## DISCUSSION :

Periodontal therapy involves reduction of tissue inflammation induced by bacterial plaque and its byproducts, correction of defects or anatomic problems and regeneration of periodontium lost due to disease process.

Overt lesions in the periodontium, are common in teeth where the pulp has lost its vitality. The process is associated either with a non-treated necrotic pulp or a tooth that has been the subject of endodontic treatment.<sup>5</sup>

Necrosis of the pulp, can result in bone resorption and the production of radiolucency at the apex of the tooth, in the furcation or at points along the root.<sup>6</sup>

Controversy exists as to the potential for regeneration of an attachment apparatus to the dentinal surface of an endodontically obturated tooth. There is evidence that regeneration is possible to cementum and dentin of teeth with vital pulps. New attachment to the cementum of teeth that had non vital pulps has also been documented.

Morris<sup>3</sup> using human teeth with non vital pulps was unable to demonstrate cementogenesis on dentin of endodontically obturated teeth. There are clinicians and researchers, on the other hand, who believe that new attachment can be achieved on dentin of endodontically obturated teeth.

Robert M. Dunlap et al <sup>3</sup> found no difference in growth on the root planed surfaces of vital teeth as compared to the root planed endodontically obturated teeth.

Prichard<sup>3</sup> suggested debridement and medication of the canals before intrabony surgery to minimize the toxic effects from the pulp to periodontial area.

## DISCUSSION :

### SUMMARY AND CONCLUSION :

Periodontal regeneration is also possible in nonvital teeth. Further studies including histologic measures of periodontal regeneration should be undertaken to draw conclusive reports.

### REFERENCES :

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