

Symposium I-1

Endodontic Considerations in Periodontal- Endodontic Combined Therapy

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* Effect of Pulpal disease on attachment apparatus

- Apical foramen
- Lateral canals
- Dentinal tubules

* Effect of endodontic treatment on periodontium

- Endodontically treated teeth may not respond as well as untreated teeth to periodontal procedures. - Advanced periodontal Disease, Prichard, 1972
- If concomitant periodontal inflammation exist independent of pulpal pathosis, delaying debriding and hermetically sealing the root canal system until after surgical treatment of the periodontal defect.
- With proper endodontic treatment periodontal disease of pulpal origin should heal.

* Effect of periodontal disease on pulp

- Controversy
- Although the consensus supports the influence that a degenerating or inflamed pulp can have on the periodontium, not all investigators are in agreement about the influence of periodontal disease on the pulp
- Seltzer (1963);
 - evaluation of the status of the pulp of 85 periodontally diseased teeth.
 - 37% of the periodontally involved teeth without caries or restorations had inflammation or necrotic pulps
- Mazur and Massler (1964);
 - comparing periodontally involved and healthy teeth from the same mouth in 30 patients
 - No correlation of the extent of periodontal disease with the histologic status of the pulp.
- Czarnecki and Schilder (1979) ; Periodontal disease had no effect on the pulp.
- Pulpal disease and its extension into the periodontium causes a localized periodontitis with

the potential for further extension into the oral cavity. Periodontal disease and its extension has little short-term effect on the dental pulp.

*** The effect of periodontal treatment on pulp**

- All treatment modalities of periodontal disease have the potential to adversely affect the pulp.
- Hypersensitivity
- Effect of citric acid on the pulp; controversy

*** Differential diagnosis of periodontal and pulpal disorders**

- The most significant are pain, altered vitality of the pulp, suppuration, periodontal pockets and radiographic change.

1. Pain: Several aspects of pain should be considered by the clinician as he differentiates between periodontal and pulpal pathosis. These include the type, intensity, frequency, duration, and the activators of the pain.
2. Vitality of the pulp: Testing the vitality of the pulp often helps the clinician differentiate between pulpal and periodontal pathosis. The pulp may be tested with an electric pulp tester or with heat and cold, or both. However, results of heat and cold are frequently more accurate than those obtained with an electric pulp tester.
3. Suppuration: Suppuration may occur with either periodontal or pulpal pathosis.
4. Periodontal pockets.- It is frequently more difficult for the clinician to determine the cause of a pocket that results from pulpal degeneration than one caused by periodontal irritants.
5. Radiographic changes: Radiographic changes may be important to the differentiation between periodontal and pulpal pathosis.

*** Classification of combined endodontic periodontal disease**

1. Primary pulpal lesion
2. Primary pulpal lesion with secondary periodontal lesion
3. Primary periodontal lesion
4. Primary periodontal lesion with secondary pulpal lesion
5. Combined pulpal and periodontal lesion
6. Concomitant pulpal-periodontal lesion

1. Primary pulpal lesion

- Clinical diagnosis indicates an irreversible pulpitis or a necrotic pulp
- Often rapid onset
- In molar teeth, the furcation area may appear radiographically to have significant bone loss

- Minimal to no calculus present and no evidence of generalized or advance periodontitis
- Tooth mobile or exhibit a narrow channel sinus tract
- Swelling present in the attached gingiva and the tooth sore to biting or chewing
- Treatment
 - root canal treatment
 - Do not curette furcation region or use caustic, inflammatory medicaments in the pulp chamber.
 - excellent prognosis

2. Primary pulpal/secondary periodontal lesion

- Clinical diagnosis indicates an irreversible pulpitis or a necrotic pulp
- Evidence for the presence of periodontal disease, with vertical bone loss, inflamed soft tissue, and calculus
- Radiographic changes in the pulpal space visible with linear or isolated calcific changes
- Treatment/prognosis
 - root canal treatment
 - periodontal treatment
 - prognosis depend on ability to treat both disease entities

3. Primary periodontal lesion

- Clinical and radiographic assessments indicate generalized, moderate to deep bony pockets
- Diffuse gingival inflammation
- Asymptomatic patient and pulp responds to testing within normal limits
- Treatment/prognosis
 - extent of disease/periodontal treatment
 - patient compliance

4. Primary periodontal/secondary pulpal lesion

- Clinical and radiographic assessments indicate broad-based probings, vertical and possible apical or lateral bone loss
- Symptomatic pulpitis or necrotic pulp
- Symptoms acutes and history of previous, extensive periodontal treatment
- Tooth often has or needs extensive restoration
- Treatment/prognosis
 - dependent on periodontal treatment after RCT

5. Combined pulpal/periodontal lesion

- Clinical and radiographic assessments indicate infrabony periodontal pocket

- Communication with an isolated periradicular lesion of pulpal origin
- Pulp testing indicates a necrotic pulp
- Probing may reveal vertical fracture
- Symptoms may be acute or chronic
- Treatment
 - root canal treatment first to manage acute symptom /periodontal treatment
 - better prognosis with primary pulpal lesion
 - better prognosis with short-term lesion

6. Concomitant pulpal-periodontal lesion

- Clinical radiographic assessments indicate disease processes exist independent of each other
- Broad-based probing present
- Presence of a necrotic pulp (due to caries, extensive restorations, trauma)
- If symptoms are present, usually due to pulpal inflammation
- Both entities must be treated concomitantly with prognosis dependent on removal of the individual causes.

약력

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