

340. THE TREATMENT OF CHRONIC APICAL PERIODONTITIS

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Introduction: Chronic apical periodontitis is an inflammatory response of periodontal structures to aggression by pathogens of endo- exogenous origin, when conventional treatment does not ensure a favorable prognosis for extended lesions of periodontal structures. Conservative methods are based on the ability of the active components of the root filling materials to target through dentine tubules, accessory canals and root apex, producing antiseptic and anti-inflammatory action, and repairing the areas of periradicular destruction.

Calcium hydroxide, long known for its antimicrobial properties and stimulation of mineralization, particularly in pulp capping, has found its place in treatment of chronic apical periodontitis. The use of calcium hydroxide in endodontics has won over time a permanent interest due to:

- stimulation of tissue calcification;
- antimicrobial action;
- elimination of persistent apical secretions;
- accelerating decomposition of necrotic tissue.

Calcium hydroxide has the unique property to promote mineralization even in the tissues where this process is not characteristic. Recent assumptions assigns hydroxide group a major importance in acceleration of calcification by providing favorable alkaline environment of the process where inorganic phosphate is precipitated as calcium phosphate (Weine F.S.)

Purpose: Estimation of clinical efficacy of medications containing calcium hydroxide, inducing and accelerating osteo-reparative processes in treatment of destructive forms of chronic apical periodontitis.

Materials and Methods: In order to develop a rational plan of treatment we studied thoroughly the data from medical history, clinical examination

(probing, percussion, palpation, thermic test, teeth mobility assessment) and additional results (determining of pulp electro-excitability and X-ray examination).

Results: The study was conducted on a sample of 12 patients aged between 19-58 years, including 8 women and 4 men, presenting 16 teeth with destructive lesions of apical periodontal tissues (mono-radicular -7, biradicular-5, multi-radicular -4). All teeth were treated with calcium preparations for 3 weeks. Three months later no complete osteo-regeneration was observed in any of the cases. When examining the consignment at 6 months full osteo-regeneration was manifested in 5 cases, while in all others a partial osteo-regeneration was obtained.

Conclusions: The analysis of clinical and radiological results demonstrates that preparations of calcium hydroxide are effective remedies in the treatment of chronic apical periodontitis, which favor healing processes and tissue mineralization.

Key words: Chronic apical periodontitis, Calcium hydroxide, Treatment.