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Effect of topical application of coenzyme Q10 on adult periodontitis.

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Topical application of Coenzyme Q10 (CoQ10) to the periodontal pocket was evaluated with and without subgingival mechanical debridement. Ten male patients with adult periodontitis participated and 30 periodontal pockets were selected. During the first 3 weeks, the patients did not receive any periodontal therapy except the topical application of CoQ10. After the first 3-week period, root planning and subgingival scaling were performed in all sites. CoQ10 was applied in 20 of the pockets once a week for a period of 6 weeks. Soybean oil was applied to the remaining 10 sites as a control. In the first 3-week period, significant reductions in gingival crevicular fluid flow, probing depth and attachment loss were found only at experimental sites. After mechanical subgingival debridement, significant decreases in the plaque index, gingival crevicular fluid flow, probing depth and attachment loss were found both at experimental and control sites. However, significant improvements in the modified gingival index, bleeding on probing and peptidase activity derived from periodontopathic bacteria were observed only at experimental sites. These results suggest that topical application of CoQ10 improves adult periodontitis not only as a sole treatment but also in combination with traditional nonsurgical periodontal therapy.

Publication Types:

- Clinical Trial
- Randomized Controlled Trial

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