



## Healing of periodontal tissue assisted by Coenzyme Q<sub>10</sub> with Vitamin E – clinical and laboratory evaluation

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### Abstract:

The characteristics of the histopathological image of chronic periodontitis are alterations in the final section of blood vessels. Coenzyme Q<sub>10</sub> by the influence on the vascular wall may have a favorable effect on the improvement of the parodontium condition. Vitamin E intensifies the cell type response.

The aim of the research was evaluation of the parodontium condition after oral application of Coenzyme Q<sub>10</sub> with Vitamin E.

Thirty patients with chronic periodontitis were examined. After the initial examination, scaling and root planning the hygiene indicators: plaque index (PII), interdental hygiene index (HYG), parodontium indicators: gingival index (GI), sulcus bleeding index (SBI) ± and measurement of the periodontal pockets depth (PPD) and clinical attachment loss (CAL) was performed. The patients have been taking the Coenzyme Q<sub>10</sub> with Vitamin E drug for two months. In this time the indicators were once again estimated and the measurement of the periodontal pockets depth was performed. The total antioxidant status (TAS) in the mixed saliva by the colorimetric method was determined twice.

The average value of PII decreased from 1.0 to 0.36, and the average value of HYG was reduced from 39.51% to 6.97% after two months of taking the medicine. The parodontium condition also improved. Average values of GI decreased from 0.68 to 0.18, and the values of SBI decreased from 7.26 to 0.87. Periodontal pockets shallowed by 30%. The laboratory examination result improved by 20%.

Coenzyme Q<sub>10</sub> with Vitamin E has a beneficial effect on the periodontal tissue.

### Key words:

periodontal disease, tocopherol, coenzyme Q<sub>10</sub>, ubiquinol

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