

Clinical Effects of Chlorhexidine Gel in the Treatment of Chronic Periodontitis

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Abstract:

Background and Aim : Local antibacterial agents containing chlorhexidine (CHX) are used as an adjunct to conventional treatment in periodontal patients. In this study, a sustained release, xanthan-based CHX gel was used for non surgical treatment in moderate to advanced periodontitis.

Materials and Methods: In this randomized controlled split-mouth clinical trial, 40 periodontal pockets with probing pocket depth > 5 mm were selected and randomly assigned to the case and control groups. Scaling and root planing (SRP) were performed thoroughly at all sites. Then, chlorhexidine gel and placebo gel were applied subgingivally in test and control sites, respectively. The gels' application was done two times with one week interval. The clinical parameters including plaque index (PI), papillary bleeding index (PBI), pocket depth (PD) and clinical attachment level (CAL) were evaluated at baseline, after 1 and 3 months. Data analysis was performed using U Mann-Whitney and Friedman tests.

Results: Statistically significant improvements were observed in PBI, CAL and PD parameters following treatment in each group after 1 and 3 months. Comparison between the two treatment groups showed no significant differences in clinical parameters at any time point.

Conclusion: According to the findings of this study, adjunctive subgingival application of chlorhexidine gel did not improve clinical parameters significantly compared to scaling and root planing treatment in moderate-to-severe chronic periodontitis.

Key words: Locally delivered drugs, Chronic periodontitis, Chlorhexidine, Treatment Outcome