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Effect of Non-Surgical Periodontal Therapy According to Periodontal Severity

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Abstract: Nonsurgical periodontal therapies have, for several decades, been the basis of periodontal treatment concepts. The aim of this paper is to investigate the effectiveness of non-surgical periodontal therapy according to the severity of periodontitis disease. Methods: Retrospective data of patients who visited Department of periodontics in Ajou University Medical Center from 2016 to 2022 were collected. Among the patients, those who took full mouth examination of clinical parameters and non-surgical periodontal therapy were chosen for this study. Selected patients were divided into initial, moderate, and severe periodontitis based on severity and complexity of management (2018 World Workshop EFP/AAP consensus). Recall visits with clinical periodontal examination were scheduled for 1,2,3 months or 1,3,6 months after the treatment. The results were evaluated by recordings of mean probing pocket depth (mean PD), mean clinical attachment levels (mean CAL), bleeding on probing (BOP%), mean gingival index (mean GI), mean regression, mean sulcus bleeding index (mean SBI), mean plaque scores (mean PI). All statistical analyses were performed with R software, version 4.3.0. A level of significance, P<0.05, was considered to be statistically significant. Results: A total of 92 patients were included in this study. 15 patients were diagnosed as initial periodontitis, 14 moderate periodontitis, and 63 severe periodontitis. The all parameters except for mean recession decreased over time in all groups. The amount of mean PD decreased were the greatest in severe periodontitis group followed by moderate and initial, which was found to be statistically significant. The changes of mean PD were 0.15±0.05 mm, 0.37±0.06 mm, and 1.01±0.07 mm (initial, moderate, and severe, respectively, P<0.001). When comparing before and after treatment, the reductions in BOP(%), mean GI, mean SBI, and mean PI were statistically significant. Conclusion: All patients who received non-surgical periodontal therapy showed periodontal healing in terms of improvements in clinical parameters, and it was greater in the severe group.

Keywords: periodontology, clinical periodontology, oral treatment, comprehensive preventive dentistry, non-surgical

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