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Intrapocket Anesthesia for Scaling and Root Planing: Results of a Double-Blind Multicenter Trial Using Lidocaine Prilocaine Dental Gel

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Abstract

Background: The efficacy of a novel anesthetic gel (lidocaine 25 mg/g plus prilocaine 25 mg/g in thermosetting agents) for non-invasive periodontal pocket anesthesia was evaluated.
Methods: One hundred twenty-two (122) patients in 8 centers with moderate to severe periodontitis requiring scaling and root planing (SRP) were enrolled in this multicenter, randomized, double-blind, controlled clinical trial. The active dental gel or a matching placebo gel was applied into the periodontal pocket using a blunt applicator. Following a waiting period of 30 seconds to 2 minutes, scaling and root planing were performed. If the patient had any discomfort, a second application of the gel was applied. If the patient continued to experience discomfort, conventional anesthesia was offered. After all teeth in the test quadrant had received SRP, the overall pain was assessed by the patient using a 100 mm horizontal, ungraded visual analog scale in which the left side was marked "no pain" and the right side marked "worst pain imaginable." Patients also assessed pain by using a 5-point verbal rating scale, from "no pain" to "very severe pain."
Results: The visual analog scale showed significant reductions in reported pain, favoring the active gel over the placebo (mean reduction, 8 mm; $P < 0.0005$). The verbal rating scale revealed that 90% of patients treated with active gel reported no pain or mild pain compared to 64% of placebo-treated patients ($P < 0.001$).
Conclusions: Intrapocket administration of lidocaine 25 mg/g plus prilocaine 25 mg/g and thermosetting agents may be effective for pain control for scaling and root planing and may offer an alternative to infiltration anesthesia. *J Periodontol 2001;72:895-900.*