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A Gingivitis Examiner Assesment Using a Dental Prophylaxis Model

C. LI, T. HE, L. SUN, and X. LI
P&G, Beijing, China

Objective: To assess the gingivitis examiners' ability to detect dental prophylaxis treatment difference. **Methods**: This was a single-center, one-month clinical trial. Fifty-one subjects with representative gingivitis were enrolled. After baseline gingivitis examination, subjects were assigned to either dental prophylaxis group or non-prophylaxis group based on gender, smoking status and the numbers of the gingival bleeding sites. The dental prophylaxis employed in the study is a procedure to remove supragingival plaque and calculus. Subjects brushed with Crest® Cavity Protection for 30 days. Gingivitis was assessed at Day 3 and Day 30 post-prophylaxis by two examiners using Mazza Gingivitis Index. Paired T-test was used to compare the pre- and post-prophylaxis gingivitis level; Weighted Kappa value was calculated to evaluate examiner's reproducibility (non-prophylaxis group). **Results**: All the subjects completed the study. One examiner was able to detect statistically significant difference of the pre- and post-prophylaxis gingivitis level at Day 3 ($P<0.001$) and Day 30 ($P=0.003$). Gingival inflammation level was minimal at Day 3 and increased from Day 3 to Day 30. The other examiner detected similar trend. Weighted Kappa values were similar between these two examiners - 0.43 and 0.47 respectively at Day 3 and 0.46 and 0.49 respectively at Day30. **Conclusion**: **The pre- and post-prophylaxis treatment difference was detectable by gingivitis examiners using Mazza Gingivitis Index.**

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Clinical Effects of Peroxide Gel Thickness on Experimental Strips

P. SAGEL[1], R. GERLACH[1], M. BARKER[1], P. HARRIS[2], and I. MAGNUSSON[2]
[1]P&G, Mason, OH, USA
[2]University of Florida, Gainesville, FL, USA

Objective: A double-blind, randomized clinical trial was conducted to evaluate the effect of peroxide gel thickness on clinical whitening response. **Methods**: 48 subjects were randomized (3:3:2) to one of three experimental 6% peroxide strips, with either 0.2, 0.1 or 0.05 mm peroxide gel uniformly distributed over the strip surface. Test products were distributed in blinded containers, and the maxillary arch was treated twice daily for 14 days, at-home and unsupervised. Efficacy was measured objectively as L*a*b* color change from digital images at baseline, and Days 4, 7 & 14, while safety was evaluated from interview and examination. **Results**: The study population was predominantly female (71%), with ages ranging from 18-61 years. All three strip groups experienced significant ($p < 0.02$) improvement in $\Delta b*$ and $\Delta L*$ at the Day 4 visit. At end-of-treatment, adjusted mean $\Delta b*$ (SE) was –3.0 (0.24), –2.9 (0.22) and –2.4 (0.28) in the 0.2, 0.1 and 0.05 mm groups, respectively. For $\Delta L*$, the Day 15 adjusted mean (SE) was 1.9 (0.31) for the thickest gel, 1.9 (0.27) for the intermediate gel, and 1.5 (0.35) for the thinnest gel. Groups did not differ significantly ($p > 0.16$) with respect to $\Delta b*$ or $\Delta L*$. Subject-reported oral irritation was most common in the 0.2 mm group (17% of subjects) compared to the 0.1 mm group (6%), and the 0.05 mm group (no reports of oral irritation). No subjects discontinued treatment early due to an adverse event. **Conclusion: In a randomized, double-blind clinical trial, use of thin (0.1 mm) or very thin (0.05) 6% hydrogen peroxide gels yielded appreciable whitening with little oral irritation.**

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