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Thursday, March 17
1310 Anti-plaque Clinical Evaluation of a Paste, Power Brush, and Rinse

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Objectives: A clinical study was conducted to evaluate the anti-plaque level of the combination use of a therapeutic dentifrice and rinse plus power brush.

Methods: Adults who demonstrated disclosed plaque growth overnight were randomly assigned to a combination paste-rinse-brush group or control. Subjects received either the combination treatment with 0.454% stannous fluoride sodium hexametaphosphate dentifrice (Crest® Pro-Health™ Night), a rotating-oscillating powered brush (Oral-B® Vitality™ Precision Clean), and 0.07% cetylpyridinium chloride rinse (Crest Pro-Health Night), or a regular brush and anticavity paste, with use at-home and unsupervised over a 4 week period. After completion of the 4-week study, additional institutional review and informed consent were obtained, and subjects returned for a dental prophylaxis. Digital plaque image analysis of the anterior facial teeth measured fluorescein-disclosed overnight and post-brush plaque at baseline, Weeks 2 & 4, and then immediately after dental prophylaxis.

Results: 29 subjects with a mean (SD) age of 39.8 (13.4) were enrolled, and 72% of the subjects were female. Baseline overnight plaque area% means were approximately 16.0 for each treatment group. Groups differed significantly ($p<0.005$) at Weeks 2 and 4 for overnight and post-brush plaque, but did not differ significantly ($p=0.335$) for post-prophy plaque. For the combination group, week 2 mean (SE) post-brush plaque area% was 3.50 (0.37) compared to 3.59 (0.52) for the post-prophy plaque level with no statistical difference ($p=0.885$). The control group exhibited significantly ($p=0.003$) higher plaque area% between week 2 and post-prophylaxis with a mean difference of 4.89 demonstrating model sensitivity. Outcomes at week 4 were similar to week 2.

Conclusion: Use of the combination stannous fluoride dentifrice, power brush and rinse demonstrated appreciable anti-plaque benefits as early as 2 weeks and on through 4 weeks.

Thursday, March 17
1311 Gingivitis Treatment with 0.454% Stannous Fluoride Dentifrice or Prophylaxis

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Objectives: A 6-week randomized controlled trial was conducted to evaluate effects of 0.454% stannous fluoride dentifrice on established gingivitis.

Methods: After institutional review and informed consent, healthy adults with established moderate-to-severe gingivitis were randomly assigned in a 1:1 ratio to brushing with a 0.454% stannous fluoride dentifrice (Crest® ProHealth™ Clinical Gum Protection) dentifrice (the experimental group) or a dental prophylaxis plus regular brushing (the positive control). Test products were dispensed in a blinded kit along with a manual brush, oral hygiene was at-home and unsupervised. Clinical response was measured every 2-weeks using the Gingivitis Index (GI), and bleeding sites were derived from site scores of 2+. Treatment comparisons were made using analysis of covariance.

Results: A total of 46 subjects were enrolled, with mean (SD) age of 33.9 (13.5) years, groups were balanced at baseline, and bleeding sites ranged from 20-102 (mean=52). The prophylaxis and dentifrice groups both exhibited significant ($p<0.001$) improvements at Week 2, with mean changes of –23.6 and –15.2 bleeding sites, respectively. By Week 4, responses were virtually identical, with adjusted mean bleeding site scores differing by less than 0.2%, and with a gingivitis 95% CI of (-0.05, 0.05). Both groups continued to exhibit significant ($p<0.001$) improvement in gingival health through Week 6. ANCOVA between-group comparisons showed significant differences on gingivitis and bleeding only at Week 2. Responses at other times were similar and not significantly different.

Conclusion: With moderate-to-severe gingivitis, use of a 0.454% stannous fluoride dentifrice or a dental prophylaxis resulted in significant improvements in gingivitis over a 6-week period.

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