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Thursday, March 17
1312 1-Week RCT with a Therapeutic Paste,
Rinse and Power Brush

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Objective: A randomized controlled trial evaluated the combined power brush use with therapeutic dentifrice and rinse products on overnight plaque accumulation and removal.

Methods: After IRB review, informed consent was obtained from the study population consisted of healthy adult volunteers with plaque. During an acclimation phase, subjects brushed teeth thoroughly twice daily with an anti-cavity dentifrice and regular manual toothbrush. After acclimation, overnight plaque was disclosed using a fluorescein rinse and measured from digital images under standard lighting. Subjects were provided a powered toothbrush (Oral-B® ProfessionalCare® 1000) and 0.454% stannous fluoride dentifrice (Crest® Pro-Health™), and plaque was measured again. Over the 1-week test period, subjects continued twice daily product use with the addition of a 0.07% cetylpyridinium chloride rinse (Crest Pro-Health) twice daily. Overnight and post-brush plaque was again measured at the end of the test period using digital imaging.

Results: Nineteen subjects were included in the research ranging in age from 20 to 59 years with an average of 35 years. Following the acclimation period, the overnight mean (SE) plaque area coverage (%) was 13.06 (2.17). After a single power brushing with the stannous fluoride dentifrice, mean (SE) plaque area was reduced significantly ($p=0.0001$) to 5.18 (0.91). After 1-week usage of the full regimen, the overnight mean (SE) plaque area of 4.76 (0.65) was significantly ($p=0.0006$) lower than the starting overnight level. Mean (SE) 1-week post-brushing plaque area of 3.40 (0.33) was significantly ($p<0.05$) lower than all prior visits. All products were well tolerated.

Conclusions: One-week use of a rotation-oscillation brush, stannous fluoride dentifrice, and CPC mouth rinse resulted in a 64% reduction in overnight plaque and 74% reduction post-brushing relative to the starting overnight plaque level from using a regular anti-cavity paste and manual brush.



Thursday, March 17
1313 Paste, Power Brush and Floss Combination Effects
on Gingival Bleeding

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Objectives: This research evaluated the effects of a daily oral hygiene combination on existing gingivitis.

Methods: A randomized controlled trial was conducted to evaluate the safety and effectiveness of a daily oral hygiene combination on gingival bleeding in adults with mild-to-moderate gingivitis. After informed consent, gingivitis and bleeding were measured using the Gingivitis Index, and subjects were randomly assigned to an experimental group or professional care control. The experimental group received a daily oral hygiene combination of 0.454% stannous fluoride dentifrice (Crest® Pro-Health™ Clinical Gum Protection), rotation-oscillation power brush (Oral-B® ProfessionalCare® SmartSeries 5000 with SmartGuide), and expanded PTE floss (Oral-B Glide® Pro-Health Clinical Gum Protection), while the control group received a dental prophylaxis plus a regular brush and anticavity paste. Test products were dispensed in blinded kits with labeled usage instructions, daily treatment was unsupervised at-home, and subjects were evaluated biweekly over 6-weeks to assess change in bleeding sites.

Results: The 46 adults (mean age=30.0 years) exhibited considerable diversity with respect to ethnicity and gender. Bleeding sites ranged from 6-45, with an overall mean (SD) of 12.9 (7.1) at baseline. At Week 2, the experimental and control groups showed significant ($p<0.009$) bleeding reductions from baseline of 50-53%. Unlike the control, response continued to improve in the experimental group and by Week 6, 83% of subjects had no bleeding sites, and mean (SD) bleeding levels were 0.17 (0.39). Treatments differed significantly ($p<0.001$) at Weeks 4 & 6, favoring the combination group. One subject (in the combination group) reported mild gingival irritation, but all other treatment was well-tolerated.

Conclusion: Gingivitis treatment in a general population showed significant 71-95% reductions in bleeding with a stannous fluoride dentifrice, rotation-oscillation power brush and floss relative to a prophylaxis control, with more than 80% of combination subjects finishing 6-weeks without measurable bleeding.