



One-Day Incremental Effects of 0.07% CPC Rinse on Dental Plaque

2561

M.J. DOYLE*¹, M.L. BARKER¹, R.W. GERLACH¹, K. KARPINIA², I. MAGNUSSON²

¹The Procter & Gamble Company, Mason, OH, ²University of Florida, Gainesville, FL

ABSTRACT

Objective: This research evaluated the incremental contribution of a therapeutic mouthrinse on dental plaque when used in combination with a daily oral hygiene regimen.

Methods: After IRB review, informed consent was obtained from healthy adult volunteers with overnight plaque. Volunteers who were previously acclimated to power brushing abstained from oral hygiene prior to a morning plaque evaluation visit. Subjects were provided an oscillation-rotation brush (Oral-B® Triumph™ with SmartGuide™) plus 0.454% stannous fluoride dentifrice (Crest® Pro-Health® Night) and instructions for oral hygiene use. Plaque was disclosed using 5 mL of a 1240 ppm fluorescein rinse, and after expectoration, subjects were positioned using cheek retractors, and a digital image was collected using standardized lighting. Subjects were then provided a 0.07% cetylpyridinium chloride rinse (Crest® Pro-Health™ Night), and were instructed to rinse twice daily with 20mL for 30 seconds along with the daily oral hygiene regimen. After one day, fluorescein rinsing and imaging were repeated. Image analysis was used to objectively measure disclosed plaque (area %) on facial anterior tooth surfaces. Visits were compared using repeated measures analysis, and a correlation was derived.

Results: Image analysis was conducted on 19 adults (mean age = 39 years) who used the daily regimen plus rinse. Post-brush plaque area scores were generally low for the brush/paste, ranging from ~2-8% area coverage. Mean (SD) plaque area% was 4.51 (1.73) for the brush/paste, compared to 3.91 (1.54) after one day use of the brush/paste/rinse combination, differing significantly (p=0.037). The between-visit model correlation was 0.754 (p<0.001).

Conclusion: Addition of a 0.07% CPC rinse to a brush/paste combination yielded a significant 13% reduction in post-brush plaque after one day use.

TEST PRODUCTS

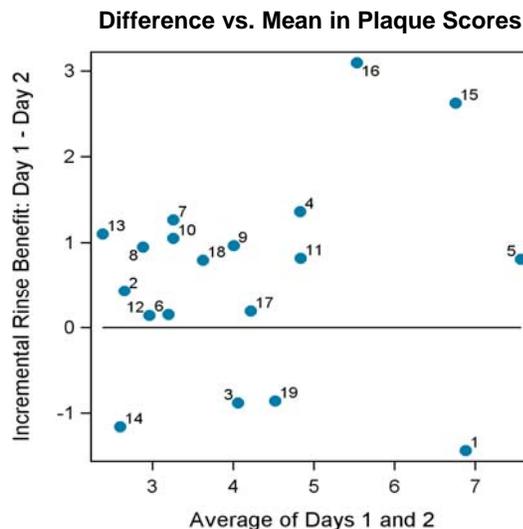
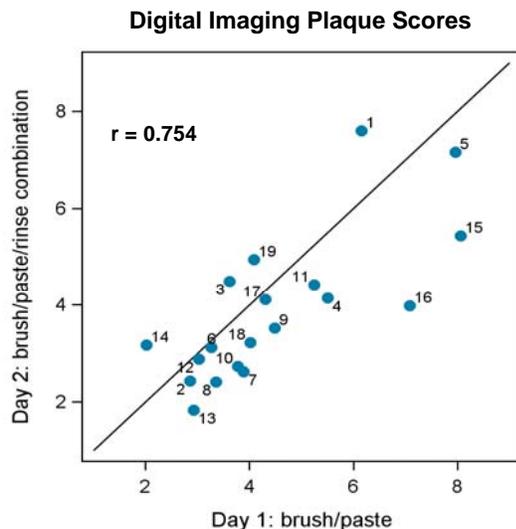
- Crest® Pro-Health Night Dentifrice (0.454% stannous fluoride)
- Crest® Pro-Health Night Mouth Rinse (0.07% CPC)
- Oral-B® Triumph with SmartGuide powered toothbrush

RESULTS

Image analysis was conducted on 19 adults who used the daily regimen plus rinse. Post-brush plaque area scores were generally low for the brush/paste, ranging from ~2-8% area coverage. Mean (SD) plaque area% was 4.51 (1.73) for the brush/paste, compared to 3.91 (1.54) after one day use of the brush/paste/rinse combination, differing significantly (p=0.037). The between-visit model correlation was 0.754 (p<0.001).

Demographics	
Characteristic Statistic	Value
Sample Size	19
Age (years)	
Mean (SD)	39.2 (15.35)
Min – Max	19 – 73
Gender	
Female: # (%)	13 (68%)

Digital Plaque Imaging Area Coverage (%) Comparison Between Treatment Days			
Day / Treatment	Mean (SD)	Reduction vs. brush/paste	p-value
Day 1: brush/paste	4.51 (1.73)		
Day 2: brush/paste/rinse	3.91 (1.54)	13%	0.037



CONCLUSIONS

Addition of a 0.07% CPC rinse to a brush/paste combination yielded a significant 13% reduction in post-brush plaque after one day use.