Clinical Study to Evaluate the Dentin Hypersensitivity Reduction Efficacy of a Mouthwash Containing 0.8% Arginine as Compared to a Negative Control Mouthwash over an Eight-Week Period

D. Hu1, L.R. Mateo2, B. Stewart3, Y.P. Zhang3, F. Panagakos3

Data on File
1 College of Stomatology, West China University of Medical Sciences, Chengdu, China
2 LRM Statistical Consulting, Hoboken, NJ, USA
3 Colgate-Palmolive Technology Center, Piscataway, NJ, USA

Study objective
The objective of this eight-week study was to evaluate the dentin hypersensitivity reduction efficacy of a mouthwash containing 0.8% arginine, PVM/MA copolymer, pyrophosphates, and 0.05% sodium fluoride (“Arginine Mouthwash”) compared to a mouthwash containing 0.05% sodium fluoride (“Negative Control”).

Trial conditions and methods

Products under investigation

Arginine Mouthwash: 0.8% arginine, PVM/MA copolymer, pyrophosphates, and 0.05% sodium fluoride (Colgate-Palmolive Company, New York, NY)

Negative Control Mouthwash: 0.05% sodium fluoride (Colgate-Palmolive Company, New York, NY)

Study subjects
90 male and female adults in China with established dentin hypersensitivity (two hypersensitive teeth with a tactile score [Yeaple probe] of 10–50 grams of force and air blast score of 2 or 3 on the Schiff Cold Air Sensitivity Scale).

Methods
In this double-blind, parallel-group study, 90 subjects with established dentin hypersensitivity were randomly assigned to one of the test groups. Subjects brushed with the toothbrush and fluoride toothpaste provided and then rinsed with 20 mL of their assigned mouthwash for 30 seconds twice daily for eight weeks. Dentin hypersensitivity assessments were conducted at the baseline visit and again after two weeks, four weeks and eight weeks of product use.
**Results**

After two weeks, four weeks and eight weeks of product use, subjects in the Arginine Mouthwash group exhibited statistically significant (p<0.05) improvements in mean tactile hypersensitivity scores (higher scores are better) and mean air blast hypersensitivity scores (lower scores are better) as compared to the Negative Control Mouthwash group.

**Conclusions**

The results of this double-blind clinical study support the conclusions that the Arginine Mouthwash provides a significant reduction in dentin hypersensitivity after eight weeks of product use as compared to a negative control mouthwash.