Colgate[®] Total with Dual Zinc plus Arginine significantly reduces Dentin Hypersensitivity

Results



Baseline Adjusted Hypersensitivity Reductions after 4 and 8 Weeks of Dual Zinc plus Arginine Test Toothpaste Usage compared to regular Fluoride Toothpaste

- Subjects evaluated at the 4 week time point demonstrated statistically significant reductions (p<0.001) in both tactile and air-blast measures of dentin hypersensitivity compared to both baseline and the regular fluoride control toothpaste. The baseline adjusted between treatment reductions were 35.6% (tactile) and 23.9% (air blast) respectively.
- After an additional 4 weeks of product usage subjects demonstrated further statistical reductions in hypersensitivity, again, for both tactile and air blast. The baseline adjusted between treatment reductions after 8 weeks of product usage improved to 58.7 % (tactile) and 30.1 % (air blast) respectively.

Clinical study essentials

- Randomized, single-center, stratified, double-blind, parallel-group study
- 100 subjects completed the study
- 8 weeks duration
- Performed at Mahidol University, International Oral Science Research, Bangkok, Thailand.
- Data on file, Seriwatanachai D et al, Colgate Palmolive Technology Center, Piscataway, USA, January 2016

Implication for practice

Colgate® Total provides patients with significant sensitivity relief after 4 and 8 weeks of continuous use.



Supplementary Study Information



Products under Investigation

- Test toothpaste: zinc (zinc oxide, zinc citrate) 0.96%, 1.5% Arginine, occluding silica, and 1450 ppm fluoride as sodium fluoride (Colgate® Total with Dual Zinc plus Arginine; Colgate-Palmolive Company, New York, NY)
- Control toothpaste: regular sodium fluoride toothpaste containing 1450 ppm fluoride (Colgate-Palmolive Company, New York, NY)



Study participants

100 male and female participants with a minimum of two hypersensitive teeth, with a tactile hypersensitivity stimuli score of 10 to 50 grams of force (Yeaple Probe), and an air blast stimuli score of 2 or 3 (Schiff Cold Air Hypersensitivity Scale) were entered into the study



Methods

Subjects were instructed to brush with the assigned toothpaste twice daily for 8 weeks. Dentin hypersensitivity was assessed via tactile stimuli and air blast stimuli initially and after 4 and 8 weeks of product use. Comparisons of the treatment groups with respect to baseline-adjusted tactile hypersensitivity and air blast hypersensitivity scores at the follow-up examinations were performed using analysis of covariance (ANCOVA's).



Trial Procedure





Conclusion

The results of this study support the conclusions that the Colgate® Total with Dual Zinc plus Arginine toothpaste provides significantly greater reduction in dentin hypersensitivity as compared to a regular fluoride toothpaste after both 4 and 8 weeks of product use.

Further published studies with these products:

- 1. Delgado et al, J Clin Dent, accepted for publication 2018
- 2. Prasad K et al, J Clin Dent, accepted for publication 2018 3. Manus L et al, J Clin Dent, accepted for publication 2018
- 4. Lee C et al, J Clin Dent, accepted for publication 2018 5. Hu D et. al, J Clin Dent, accepted for publication 2018

