Randomized Trial of the Clinical Efficacy of a Potassium Oxalate-Containing Mouthrinse in Rapid Relief of Dentin Sensitivity

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Abstract

• **Objective:** The aim of this randomized clinical trial was to evaluate the efficacy of a mouthrinse containing 1.4% potassium oxalate (Listerine® Advanced Defence Sensitive; LADS) plus Colgate® Cavity Protection Regular toothpaste, in reducing dentin sensitivity.

• **Methods:** This was an observer- and examiner-blinded, randomized, parallel-group, single-center, controlled, five-day clinical trial. Healthy adults were randomized (2:1:1) to LADS plus Colgate Cavity Protection Regular toothpaste, or to one of the two negative-control toothpastes alone: Crest® Cavity Protection Regular or Colgate Cavity Protection Regular. The subjects carried out supervised and unsupervised brushing and rinsing twice a day. Dentin sensitivity was assessed at baseline and during treatment by Yeaple probe (tactile pressure; patient-reported discomfort by visual analogue scale [VAS]), as well as response to air blasts (VAS).

• **Results:** All sensitivity assessments were similar at baseline in the 56 randomized subjects. By the third day, the Yeaple probe sensitivity scores for subjects treated with Colgate toothpaste plus LADS improved significantly compared to Crest toothpaste alone (p < 0.05). By the fifth day, the mean scores for subjects treated with Colgate toothpaste plus LADS were significantly improved compared with subjects treated with either toothpaste alone (p < 0.05). The other sensitivity assessments showed that Colgate toothpaste plus LADS achieved statistically significant improvements compared with Colgate and/or Crest toothpaste alone from the third day.

• **Conclusions:** The 1.4% potassium oxalate mouthrinse (LADS) was associated with a reduction in dentinal sensitivity within a five-day period. Statistically significant reductions in all sensitivity variables were achieved by Day 3 and even greater reductions in dentin sensitivity scores were observed after five days.

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