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A clinical study to assess the anticalculus efficacy of a new dentifrice containing a special grade of silica (Colgate Total Plus Whitening Toothpaste): a clinical trial on adults.

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The objective of this double-blind clinical study, conducted using the Volpe-Manhold design for studies of dental calculus, was to confirm the supragingival anticalculus efficacy of a formulation variant of a commercially available anticalculus dentifrice. The commercially available dentifrice (Colgate Total Toothpaste) contains 0.3% triclosan and 2.0% PVM/MA copolymer in a 0.243% sodium fluoride/silica base. The new formulation variant contains those same ingredients, of which 10% of the silica is a high cleaning grade (Colgate Total Plus Whitening Toothpaste). In this study, the dentifrice formulation variant was tested for anticalculus efficacy against a negative control dentifrice containing 0.243% sodium fluoride/silica. Adult male and female subjects from the northern New Jersey area were entered into the study based on a pre-test (baseline) Volpe-Manhold Calculus Index score of 7.0 or greater, provided a full oral prophylaxis, and stratified into two treatment groups which were balanced for age, sex, and baseline calculus scores. Subjects were instructed to brush their teeth twice daily (morning and evening) for one minute with their assigned dentifrice, using a soft-bristled toothbrush. Examinations for dental calculus were again performed after eight weeks' use of the study dentifrices. Sixty-three (63) subjects complied with the protocol and completed the entire study. At the eight-week examination, subjects in the Colgate Total Plus Whitening Toothpaste group exhibited a statistically significant 34.13% reduction in mean Volpe-Manhold Calculus Index score as compared to the negative control dentifrice group. Thus, the results of this clinical study support the conclusion that a new dentifrice formulation variant containing a special grade of silica (Colgate Total Plus Whitening Toothpaste) is efficacious for the control of the formation of supragingival calculus.

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