Clinical evaluation of the efficacy and safety of an ultrasonic toothbrush system in an elderly patient population.

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Abstract
Twelve dentulous patients, age 65 or older, with no medical or pharmacologic predisposition to gingival hyperplasia were enrolled in a controlled clinical trial to evaluate the effect of the unaided use of an ultrasonic toothbrush on supragingival plaque and gingival bleeding. Subjects used the ultrasonic toothbrush in lieu of their conventional toothbrushes for a 30-day period. Clinical measurements of the plaque index and bleeding index were made at baseline and at 15 and 30 days. At the end of the 30-day test period, the use of the ultrasonic toothbrush resulted in significant reductions in plaque score, proportion of high plaque surfaces, and bleeding index. The reduction of the bleeding index indicates significant improvement in oral health. In this study, the use of an ultrasonic toothbrush effectively improved oral hygiene and health in a population that often exhibits decreased manual dexterity. Strategies for oral health care assessment and education for guidance of effective interventions are included in checklist form; level of care classification, cost in both time involved and equipment, and purchase instructions also are discussed. Further study is warranted to evaluate this instrument for cognitively impaired elders, who often rely on caregivers for oral hygiene procedures.

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