Effect of Sonicare and Braun D17 on experimentally-induced gingivitis.

Presented at AADR, Chicago, 7-10 March 2001

Abstract

The purpose of the present study was to compare, using a split-mouth design, the ability of two power toothbrushes – a novel Braun Oral-B brush (D17) and the Sonicare (S) brush – to reduce experimental gingivitis (EG) which had been developed over a period of 3 weeks. A run-in period of 2 weeks preceded the EG period and together this was considered as the pre-trial phase of the experiment. The pre-trial phase allowed subjects to become acquainted with the 2 brushes and to receive proper oral hygiene instruction. It also allowed a reasonable level of gingivitis to develop. At day 21 of the EG period, those subjects with at least 40% of sites bleeding in each quadrant in the lower jaw, were allowed to continue with the trial. During the next 4 week treatment phase of the study, subjects were told to brush according to a split-mouth design, the right and left sides of the mouth, which were randomly allocated to one of the two toothbrushes. During this treatment phase, no additional oral hygiene products other than use of a standard toothpaste (Zendium) was allowed. During the next 4 week treatment phase of the study, no additional oral hygiene products other than use of a standard toothpaste (Zendium) was allowed. After 1, 2 and 4 weeks, a plaque index (Quigley & Hein), and bleeding on probing were assessed in the lower jaw. The results show that

Results

Effect of 4 weeks treatment with either the Sonicare or the D17 on the Angulated Bleeding Index for all sites

Conclusions

• The Braun Oral-B 3D Excel (D17) was found to be significantly more effective in reducing bleeding than Sonicare
• Over the treatment period plaque was reduced 53% for the 3D Excel and 45% for the Sonicare

Powered toothbrushing compared to a professional polish.

Presented at IADR, Chiba, 27-30 June 2001

Abstract

Aim: This parallel examiner blind study was designed to compare the results of brushing with a powered toothbrush [Braun Oral-B 3D Excel (PTB)] to a professional polish session. Materials & Methods: For this study 90 non-dental students were selected. All received a single oral prophylaxis where plaque and calculus were removed and the teeth were polished so that all subjects started with equally clean teeth. Approximately 4 weeks later the subjects received a new appointment prior to which they were asked to abstain from oral hygiene procedures for at least 48 h. At baseline the examiner (MP) evaluated the amount of dental plaque (Gilles & Lefèvre) at 6 surfaces of each tooth. Subsequently, in the absence of this examiner, the subject’s teeth were brushed or polished by a dental hygienist. 3 groups were formed; the subjects in Group 1 received 10 min. of polishing with a rubber cup/past using dentifrice as abrasive paste, in Group 2 subjects were brushed for 2 min. with a PTB and dentifrice by the hygienist and in Group 3 brushing for 10 min. was performed with a PTB and dentifrice. Care was taken to call upon the examiner always > 10 minutes after her leaving the room so that she was unaware of the treatment. Powered brushing was carried out carefully following the contour of the teeth and turning the brushhead separately in the direction of the mesial and the distal aspect of each tooth in each approximal space. After finishing with the brushing/polishing the examiner re-evaluated the amount of remaining dental plaque. Results: The baseline plaque levels in Group 1-3 were 1.54, 1.62 and 1.55 respectively. The reduction in plaque scores in Group 1 was 94.6% (±6) for Group 2 94.2% (±5) and for Group 3 99.4% (±1.5). Over the treatment period plaque was reduced 53% for the 3D Excel and 45% for the Sonicare

Conclusions

• Professional brushing with the Braun Oral-B 3D Excel power toothbrush and dentifrice for 2 minutes removed a similar amount of plaque as polishing with a rubber cup/paste and dentifrice for 10 minutes.
• Brushing with the 3D Excel for 10 minutes removed significantly more plaque than either polishing for 10 minutes or brushing for 2 minutes.
• The greater efficiency observed after 10 minutes brushing with the 3D Excel was the result of plaque removal from approximal surfaces and molars.