Gingival Health

in vivo study

Efficacy of Sonicare FlexCare
in reducing gingivitis in smokers


Objective

To examine the efficacy of Sonicare FlexCare in reducing the clinical manifestations of experimental gingivitis in smokers.

Methodology

Fifteen subjects over 18 years of age who were current smokers participated in a single-blind study. All subjects received an initial evaluation and a baseline prophylaxis. Stents were fabricated to protect three adjacent teeth in two quadrants (one maxillary, one mandibular) during brushing for 21 days. Instructions were given to avoid mouthwash, flossing or other hygiene aides in the area. Turesky-Modified Quigley-Hein Plaque Index, Löe and Silness Gingival Index and Gingival Crevicular Fluid Flow were recorded for both baseline and 21-day accumulated plaque. Subjects were then given a Sonicare FlexCare toothbrush and instructed to use it for two weeks. At the conclusion of the two-week usage period, Turesky’s plaque index, Löe and Silness Gingival Index and Gingival Crevicular Fluid Flow were once again recorded.

Results

Plaque index, gingival index and gingival crevicular flow increased in the induction phase and decreased considerably during the resolution phase following brushing with the Sonicare FlexCare. A significant reduction in 21-day plaque and gingival index scores was observed following two weeks of Sonicare FlexCare use (p<0.01 and p<0.01 for plaque and gingival index, respectively). Similarly, a significant reduction in 21-day gingival crevicular scores in induced gingivitis was observed after two weeks of Sonicare FlexCare use (p<0.05). For all three parameters, post-brushing scores after the resolution phase were lower than initial baseline, suggesting marked improvement in gingival health.

Conclusion

Sonicare FlexCare significantly reduces induced gingivitis in smokers in two weeks.
Gingival Crevicular Flow

- Baseline: 31.3
- 21 days: 58.9
- Post 14-day Sonicare brushing: 25.9

Gingival Index

- Baseline: 1.35
- 21 days: 2.12
- Post 14-day Sonicare brushing: 0.34

Plaque Index

- Baseline: 0.5
- 21 days: 3.73
- Post 14-day Sonicare brushing: 0.48

Brushing

Sonicare FlexCare / FlexCare+