Gingival Health

in vivo study

Reversal of induced gingivitis using Sonicare Elite

de Jager M, Aspiras M, Moss K, Barros S, Offenbacher S. Inflammatory Mediator Changes During Induction and Resolution of Experimental Gingivitis. *J Dent Res* 87 (spec Iss B): 2044, 2008

Objective

To evaluate the efficacy of the Sonicare Elite to resolve experimentally induced gingival inflammation.

Methodology

Experimental gingivitis was induced in 24 subjects for 21 days using partial mouth guards that prevented normal oral hygiene over localized sextants of the dentition. At day 21, the mouth guards were removed and subjects were instructed to use the Sonicare Elite toothbrush twice daily during the resolution phase of four weeks. Subjects visited the clinic weekly (days 0, 7, 14, 21) during the induction phase and bi-weekly (days 35, 49) during the resolution phase. At each visit, gingival index (GI), pocket depth (PD) and Bleeding on Probing (BOP) were assessed, among other measures, to assess the level of gingival inflammation.

Results

There were significant increases in GI, PD and BOP scores during the three-week induction phase and reduction with return to baseline in the four week resolution phase. For example, the mean GI increased significantly from 0.93 (0.06) at baseline to 1.46 (0.06) [$p<0.001$] at day 21, which is the peak of the induction phase; GI then dropped significantly to 0.93 (0.06) [$p<0.001$] at day 35 and 0.84 (0.06) [$p<0.001$] at resolution. Similar patterns were observed for PD and BOP. This displayed the classic experimental gingivitis induction and resolution pattern.

Conclusion

Sonicare Elite was shown to be effective in reversing experimentally induced gingival inflammation.