CLINICAL STUDY

Rotadent® uses less brushing force

Authors: Boyd RL, McLey L, Zahradnik R Publication: Journal of Clinical Dentistry

Date: September 1997

Reference: Boyd RL, McLey L, Zahradnik R. Clinical and laboratory evaluation of powered electric toothbrushes: in vivo determination of average force for use of manual and powered toothbrushes. J Clin Dent. 1997; 8(3 Spec. No): 72 – 75.

Abstract:

Mechanical oral hygiene instruments are intended to aid in the removal of stain and dental plaque from tooth surfaces. Certain home hygiene procedures, however, can lead to soft and hard tissue trauma. Power assisted brushing instruments are gaining in popularity, yet there is limited information on the interaction of these homecare instruments with commercial dentifrices, and the impact on oral tissues.

Methodology:

- In vivo
- Total of 36 adult patients pre-screened to ensure that they were in good general health
- Group 1 consisted of 12 individuals who received a Rotadent®
- Groups 2 and 3 were randomly assigned an Interplak[®] or Braun[®]

Results:

- All power brush users applied less dentifrice than manual brush users with Rotadent users applying the least
- With a manual brush, considerably more force is employed than with any of the powered instruments
- Among the three powered brushes, less force is applied to the Rotadent brush head

Conclusion:

Powered brushing instruments were found to be used at about one-third the force of a manual toothbrush. A lower brushing force may have long-term implications in reducing soft or hard dental tissue trauma associated with the use of powered oral hygiene instruments. Among the powered instruments, Rotadent was used with the least applied force.



