

Comparison between mechanical cleaning and an antimicrobial rinse for the treatment and prevention of interdental gingivitis.

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Abstract

This study compared the efficacy of an antimicrobial mouthrinse (0.12% chlorhexidine gluconate) plus toothbrushing (mouthrinse group), mechanical interdental cleaning plus toothbrushing (mechanical group), and toothbrushing alone (control group), at reducing and preventing interdental gingival inflammation. 92 male subjects were examined for interdental inflammation using the Eastman interdental bleeding index at baseline, then monthly for 3 months after using one of the above oral hygiene regimens. The mechanical cleaning group had significant reductions in bleeding sites compared to baseline at 1 month (56.90% versus 13.17%) that persisted throughout the study (2 months = 6.65%, 3 months = 5.70%). The other regimens showed no significant bleeding reduction at any time point in the study. The mechanical interdental cleaning group showed improvement over baseline at 1 month with the full benefit apparent after 2 months. The effect of location in the mouth on bleeding reduction was also assessed. The % of posterior sites which bled was always higher than anterior sites. Analysis of maxillary versus mandibular, and buccal versus lingual sites showed no significant differences. Additional observations of the data demonstrated that sites which bled at baseline were more likely to stop bleeding in the mechanical cleaning group. Also, sites which did not bleed at baseline were unlikely to bleed subsequently when mechanical cleaning was used. Neither of these observations were true for the other cleaning regimens. These data show that only mechanical interdental plaque removal combined with toothbrushing is effective at reducing or preventing interdental inflammation. This underscores the importance of instituting mechanical interdental cleaning to eliminate interdental inflammation.