

The Waterpik dental water jet significantly reduces plaque biofilm

Biofilm Removal with a Dental Water Jet.

Gorur A, Lyle DM, Schaudinn C, Costerton JW. Biofilm removal with a dental water jet. *Compend Contin Ed Dent* 2009; 30 (Suppl 1):1 - 6.

Objective

To evaluate the effect of the Waterpik® dental water jet on plaque biofilm removal using scanning electron microscopy (SEM).

Methodology

Eight periodontally involved teeth were extracted. Ten slices were cut from four teeth and were inoculated with saliva and left for four days to further grow plaque biofilm (ex vivo). Four slices were treated with the standard jet tip, four slices were treated with the orthodontic jet tip, and two slices were used as controls. The remaining 4 teeth were treated with the orthodontic jet tip to evaluate the removal of calcified plaque biofilm (in vivo). All teeth were treated using medium pressure for three seconds and evaluated by SEM.

Results

The standard jet tip removed 99.9% and the orthodontic jet tip removed 99.8% of the biofilm on the 8 teeth slices as viewed by SEM. The orthodontic jet tip significantly removed the calcified biofilm from the surface of the four teeth as viewed by the naked eye and SEM.

Conclusion

The Waterpik® dental water jet significantly removes plaque biofilm.

