Effect of a Pulsating Waterjet Device

MOROZUMI Yuko, YAMASHITA Joe, ABE Yuzo*,
YASUKAWA Toshiyuki*, TAKEDA Mayu*, UNO Kiyohiro*,
and SATO Soh

Department of Periodontology, School of Life Dentistry at Niigata, The Nippon Dental University
*Comprehensive Dental Care, Niigata Hospital, The Nippon Dental University

Abstract: In this study, supragingival irrigation with a pulsating waterjet device was performed on subgingival plaque, and then the changes in clinical parameters and bacterial flora were evaluated in comparison to tooth brushing. The test group used a waterjet device once a day. Plaque index (PII), plaque control record (PCR), gingival index (GI), bleeding on probing (BOP), and probing depth (PD) were measured. Porphyromonas gingivalis was detected in the subgingival plaque by polymerase chain reaction. The clinical findings were superior for PII and PCR in the group treated with tooth brushing. The test group detected only a slight amount of P. gingivalis. These findings indicate that this pulsating waterjet device may be a useful therapy for periodontal disease.

Key words: Oral irrigation device, Self-care, Subgingival bacterial flora