Periodontal Bone Regeneration with an Nd:YAG Laser and LANAP® Protocol

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LANAP® protocol

Abstract

Objective: The purpose of this presentation is to illustrate the radiographic and histologic bone regeneration seen following the Laser-Assisted New Attachment Procedure™ (LANAP®) surgery using an Nd:YAG laser (PerioLase® MVP™) (Millennium Dental Technologies, Inc, Cerritos, CA) in humans. LANAP® is a single session surgical treatment.

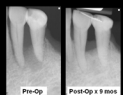
Methods: Pre-treatment and post-treatment dental radiographs of patients treated for chronic periodontitis or peri-implantitis with the LANAP® Protocol (Laser-Assisted New Attachment Procedure™) surgery are presented.

Results: Consistent increase in bone support for both natural teeth (infrabony defects and furcations) and dental implants with peri-implantitis has been seen with the LANAP® surgical protocol. The cases shown illustrate various examples of periodontal and peri-implant bone regeneration. Human histology reinforces the radiographic findings.

Conclusions: The LANAP® Protocol (Laser-Assisted New Attachment Procedure™) surgery using an Nd:YAG laser shows appreciable potential for periodontal and peri-implant bone regeneration.

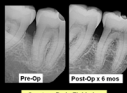
Periodontitis

Courtesy Dr. R. Gregg



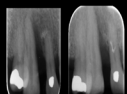
Courtesy Dr. P. Rubelman

Courtesy Dr. N. Lehman



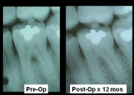
Courtesy Dr. L. Finkbeiner

Courtesy Dr. M. Nevins



Dr. R. Yukna

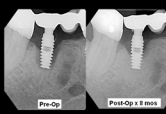
Courtesy Dr. D. Kimmel



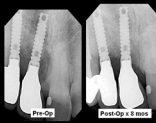
Courtesy Dr. K. Rathbum

Peri-implantitis

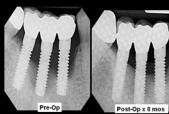
Courtesy Dr. K. Blodgett



Courtesy Dr. J. Fourtier



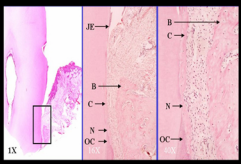
Courtesy Dr. J. Fourtier



Courtesy Dr. B. Seamons

Human Histology

Key: N = notch in calculus; B = new bone
C = new cementum; OC = old cementum;
JE = junctional epithelium



3 month human blocksection

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