

Case Study

Courtesy of Rupa Hamal DMD, MS, MPH

LAPIP® Periodontist since 2021 | Circleville, OH Periodontal Residency from the Ohio State University

PATIENT HISTORY

A 59-year-old Caucasian male was referred to our office in March 2022 for an implant evaluation on site #14; his chief complaint was pain and swelling. On a scale of 1-10, the patient stated pain level was a 5 and he could not chew on that side of his mouth. The patient had a medical history of high cholesterol, hypertension, and arthritis. Medications to control them included Losartan, Amlodipine, Gabapentin, and multivitamins.

Clinical examination showed inflamed gingival margin around implant #14. Probing depths were $7,9,9 \mid 9,7,8$ with bleeding on probing and pus. X-rays indicated advanced bone loss to the level of the second thread from the apex of the implant, but the implant was not mobile.

TREATMENT APPROACH

The patient was diagnosed with site-specific peri-implantitis around #14. The patient accepted LAPIP treatment using the PerioLase® MVP-7TM free-running pulsed Nd:YAG laser, which was completed March 2022. Advantages of LAPIP treatment that factored into this decision included quick treatment, lack of postoperative complications, minimal pain, and decreased cost compared to other surgical alternatives.

Normally we would have removed the crown prior to treatment. However, in this case, the patient had their implant and crown placed years ago by another provider. Therefore, we adjusted the crown so it was out of occlusion. After LAPIP treatment the patient was placed on a 3-month recall and given oral home care instructions. We counseled the patient to be patient with results - bone is not lost in a day and takes time to rebuild.

RESULTS

Radiographs taken at the 5.5-month post-operative visit in September 2022 show initial bone regeneration. Patient was again reminded of the importance of maintaining good oral care at home. At the one year post-operative visit, clear bone fill near the top of the implant threads was observed. Clinical probing depth had reduced to $4,5,5 \mid 5,4,5$.

The patient is pleased with the ability to treat and maintain his #14 implant using advanced laser technology with LAPIP and the PerioLase MVP-7. Based on the patient's positive experience, retreatment options remain open as needed.

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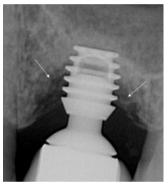


A practicing periodontist since 2002, Dr. Rupa Hamal is a Diplomate of the American Board of Periodontology and Assistant Clinical professor at the College of Dentistry, The Ohio State University. She received her Doctor of Dental Medicine from the University of Pennsylvania, Certificate of Periodontics and Master of Public health from the Ohio State University, and Master of Science from the University of Alabama at Birmingham.

She has extensive clinical experience with periodontal surgery, dental implants, extractions, laser surgery, and medically compromised patients. Dr. Hamal is a member of Omicron Kappa Upsilon.



Pre-Op: 7,9,9 | 9,7,8



5.5 Month Post-Op



1 Year Post-Op: 4,5,5 | 5,4,5

