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Smoothbeam Laser

Revolutionizes Contemporary Treatments

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"We saw a marked reduction in inflammatory facial acne counts after only one to three sessions, even in patients who had been refractory to traditional topical or systemic therapies."

Patients can achieve significant long-term clinical remission of their acne with the 1450 nm Smoothbeam diode laser from Candela Corporation (Wayland, Mass.). According to Paul Friedman, M.D., director of the DermSurgery Laser Center in Houston, Texas, such remission was observed 12 months after the third laser treatment. "We saw a marked reduction in inflammatory facial acne counts after only one to three sessions, even in patients who had been refractory to traditional topical or systemic therapies," he said.

Treatment time and the number of sessions needed with the Smoothbeam are also "shorter than with other light-based devices," Dr. Friedman stated. In addition, the diode laser "improves scars from previous acne, safely treats patients with skin phototypes IV through VI, and results in a subjective improvement in skin oiliness."

In clinical practice, Dr. Friedman typically starts patients off at lower fluences (11 – 12 J/cm^2), then gradually increases the fluence with each session, which are spaced four weeks apart. "Most patients experience greater pain during the first session because of more inflammatory lesions. However, as the number of inflammatory lesions diminishes, patients normally experience less pain with subsequent treatments and can tolerate higher fluences."

Dr. Friedman noted that the 1450 nm diode laser emits light that is strongly absorbed by water in the skin. "Heat is generated in and around the sebaceous glands, thus altering their structure," he said. "This change in the sebaceous glands — the root cause of acne — allows for effective, long lasting acne clearance." The Smoothbeam also causes minimal side effects because skin is preserved through the integrated dynamic cooling device (DCD) spray.

Dr. Friedman and his colleagues previously reported that the combination of the 595 nm pulsed dye laser and the 1450 nm diode laser improves the rate of response for the treatment of inflammatory facial acne vulgaris and post-inflammatory erythema. "This combination may also have synergistic effects to improve the efficacy for acne scarring than those obtained with either wavelength alone," said Dr. Friedman, a clinical assistant professor of dermatology at the University of Texas Medical School in Houston.

Adjuvant topical modalities for acne that Dr. Freidman has used in practice include benzoyl peroxide cleansers, antibiotic lotions, topical retinoids and oral antibiotics.

In an upcoming published study, Dr. Friedman and his associates showed the 1450 nm diode laser to be safe and effective in treating all skin types. "Sebum reduction and improvements in acne scarring are also significant benefits of the laser treatment," he conveyed. "The long-term remission achievable with the Smoothbeam, along with uniform clinical efficacy and minimal adverse effects, makes this diode laser a suitable first line, second line or adjuvant treatment modality for moderate-to-severe acne."

At the annual meeting of the *American Society for Laser Medicine and Surgery* (ASLMS) in April, Dr. Friedman presented a video that demonstrated the treatment technique of the Smoothbeam and outlined optimal parameters based on the clinical presentation. He also briefly discussed an ongoing study using a modified 1450 nm diode laser with a larger 12 mm spot size.

"The response from patients who have tried numerous other treatments for acne with limited results, yet have found real success with the Smoothbeam, is very exciting," Dr. Friedman said.