

# Nanosecond YAG Targets Wide Range of Indications

By Bob Kronemyer, Associate Editor

Nanosecond technology is an important component of the Medlite Q-switched Nd:YAG medical laser series from HOYA/ConBio (Fremont, Calif.), especially for tattoo removal. “When one is employing the theory of selective photothermolysis, it is important to match pulse duration to the size of the particle of interest,” said Bruce Saal, M.D., a dermatologist in private practice in Los Gatos, Calif. “In order to adequately target color cells and tattoos, you need to use a very brief nanosecond

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duration pulse.” Conversely, longer pulses cause non-specific injury. “The collagen adjacent to and surrounding the target reacts, leading to fibrosis,” Dr. Saal said.

**Dr. Saal has been** using the Medlite since 1992. “I treat anywhere from 150 to 200 tattoos a month. Clinical results have been excellent.” Six to ten sessions (spaced six to eight weeks apart) are normally needed. The laser is also a highly flexible “workhorse” for non-ablative skin rejuvenation, epidermal and dermal pigmented lesion removal, laser-assisted hair reduction and vascular lesion removal, according to Dr. Saal. “It is a versatile and extremely reliable instrument that has broad applications to multiple dermatologic conditions. Results are easily reproducible and extremely safe.”

Jerome Garden, M.D., a dermatologist in private practice in Chicago, noted that hair reduction is an indication “that has proven to be beneficial with all skin types using Medlite. However, the degree of permanency still remains to be evaluated using the instrument.” Dr. Garden’s most popular use of the Medlite is

for tattoo removal. “This laser is very reliable for the treatment of tattoos, especially in those patients who have a significant amount of natural color,” he said. Dr. Garden usually selects the 6 mm spot size at 2 to 3 J/cm<sup>2</sup>. A series of monthly treatments is necessary, especially for professional tattoos. “Tattoos, at times, can be totally removed with this approach,” said Dr. Garden, who also has successfully treated pigmented lesions with the Medlite.



Jerome Garden, M.D.

In treating inflammatory acne, “I’m seeing about a 50% to 75% reduction with monthly treatments,” said Paul Jarrod Frank, M.D., a cosmetic dermatologist in private practice in New York City. “We believe that the heat produced by the laser is antibacterial and that the laser tends to stun the sebaceous glands in the skin.” For laser toning, the Medlite “penetrates deeply in the skin without harming the epidermis, which otherwise would cause downtime. The undersurface

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of the skin is subtly heated, stimulating the regrowth of new collagen and new elastin. I usually recommend four to six sessions at four to six week intervals.”

**Dr. Frank’s original** use of the Medlite was to remove tattoos. “I believe it is the most versatile laser for tattoo removal because it can target several colors. In the past, people needed different machines for different colors.” Typically, 6 to 12 sessions are required to achieve at least 90% removal of the tattoo. “Of all my lasers, the Medlite is the greatest income generator,” Dr. Frank said. ■