Edema Not Necessary After Laser Hair Removal

BY DAMIAN McNAMARA
Miami Bureau

ORLANDO — A strong edematous response immediately after laser hair removal is not necessary to achieve treatment efficacy, according to a prospective study.

"There is zero need to drive patients into an intense edematous response," Albert J. Nemeth, M.D., said at the annual meeting of the Florida Society of Dermatologic Surgeons.

Dr. Nemeth conducted a study to correlate immediate postlaser response with efficacy of permanent hair removal, which he said is an area with insufficient research.

He also proposed that a less visible immediate reaction might be better for patients. "Selection of more aggressive fluences based on a perceived inadequate immediate response might cause more adverse sequelae," said Dr. Nemeth, who is in private practice in Clearwater, Fla.

Dr. Nemeth assessed 200 patients treated with the MeDioStar 810-nm power-pulsed diode laser (Asclepion Laser Technologies, Jena, Germany).

The average participant age was 36 years, 86% were female, and mean follow-up was 5 months. The majority of patients had Fitzpatrick skin types of I, II, and III.

Immediate perifollicular response and surrounding erythema were rated on a scale of 1 (very mild) to 5 (intense). Patients with a low score still had effective permanent hair reduction.

The laser features a 12-mm actively chilled handpiece with a sapphire spot. "The actively chilled handpiece is vital for epidermal protection," said Dr. Nemeth, also of the department of dermatology and cutaneous surgery at the University of South Florida, Tampa.

Laser fluences were set between 10 J/cm^2 and 36 J/cm^2. The intermittent pulse pause of MeDioStar's power pulse technology does not heat surrounding tissue as much as do other lasers, Dr. Nemeth pointed out.

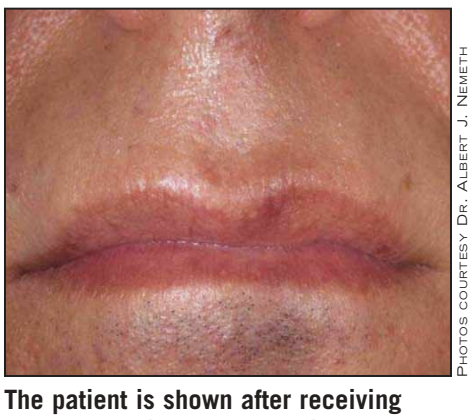
"I've never seen such efficacy with other lasers—I think the power pulse makes that much of a difference," he said. Dr. Nemeth disclosed no conflict of interest regarding the MeDioStar laser or its manufacturer.

Multiple treatment sessions were required. After the first treatment, there was a mean 26% reduction in hair. After the second treatment, there was a mean 47% reduction, and after a third session, 64%.

Adverse events were infrequent. These included occasional crusting, and "easily resolvable" postinflammatory hyperpigmentation in 5 out of a total of 978 treatment sessions.

"There is physician supervision without exception for every treatment session," Dr. Nemeth said. A highly trained nurse who also is a licensed electrologist performed all procedures in the study to minimize variations in treatment. ■

This patient is shown at baseline prior to treatment on his upper lip.



PHOTOS COURTESY DR. ALBERT J. NEMETH

The patient is shown after receiving 810-nm MeDioStar laser hair removal.

Guide to Quality Health Care

The Agency for Healthcare Research and Quality has released the booklet "Guide to Health Care Quality: How to Know It When You See It" to help consumers identify high-quality health care. To download a copy, visit www.ahrq.gov/consumer/guidetoq. To obtain a free single copy, call 800-358-9295. ■