Edema Not Necessary After Laser Hair Removal

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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,” said Albert J. Nemeth, M.D., 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 hypothesized that an immediate reaction might be better for patients. “Selection of more aggressive fluence based on a perceived moderate adverse sequelae,” said Dr. Nemeth, who is in private practice in Clearwater, Fla. Dr. Nemeth assessed 200 patients treated with the Medistar 810-nm pulsed-diode laser (Asclepion Laser Technologies, Jena, Germany). The average participant age was 36 years, and 60% were female, and then followed up was 5 months. The majority of patients had Fitzpatrick skin types of I, II, and III.

Immediate perifollicular response and subsequent edema 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 10/1 cm2 and 16/1 cm2. The intermittent pulse rate of Medistar’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 Medistar 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, 77%.

Adverse events were infrequent. These included occasional crusting, and “easily resolvable” postinflammatory hyperpigmentation in 6% of a total of 978 treatment sessions.

“There is physician supervision with no exception for every treatment session,” Dr. Nemeth said. A highly trained nurse who also is a licensed electrophysiologist followed all procedures in the study to minimize variations in treatment.

“I was not surprised at the results,” said Dr. Nemeth, who is in private practice in Clearwater, Fla. Dr. Nemeth is a member of the Academy of Laser Medicine and Surgery. He disclosed no conflict of interest regarding the Medistar laser or its manufacturer.

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PRECAUTIONS

Application of larger amounts of medication than recommended will not lead to more rapid or better absorption to a six hour exposure period, or approximately one-fourth of the human clinical daily continuation of treatment and those patients with inherent sensitivity to sunlight should exercise particular caution when using Solagé Solution.

The product should not be administered if the patient is also taking drugs known to be photosensitizers, such as tetracyclines, thalidomide, sulfones, sulfonamides, and photodynamic therapy agents or the patient is known to have a history of sensitivity to the active ingredients.

Adverse Events Occurring in >1% of the Population —All Studies

Body System

Solagé Solution

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

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

Guide to Quality Health Care

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