Fractional Laser Reduces Severity Of Treatment-Resistant Melasma

BY MITCHEL L. ZOLER
Philadelphia Bureau

GRAPEVINE, TEX. — A fractional, 1540-nm laser produced good responses in patients with treatment-resistant melasma of the face or neck in a pilot study with 12 patients.

These early findings suggest that this approach "is a useful, additional treatment modality," Dr. David B. Vasily said at the annual meeting of the American Society for Laser Medicine and Surgery.

"I wouldn't suggest that it produces a cure, but it was effective for resistant melasma, and we have not seen any recurrences during up to 6 months of follow-up in a small group of patients," said Dr. Vasily, a dermatologist in private practice in Bethlehem, Pa.

The study included patients with skin types I-III whose melasma of the face or neck had not responded well to conventional treatments. All patients received four treatments, at 3-week intervals, with the Lux1540 fractional laser handpiece made by Palomar.

Dr. Vasily has received research grants, equipment, and discounts from Palomar, and has stock in the company. The laser is approved by the Food and Drug Administration for soft-tissue coagulation and nonablative resurfacing; treatment of melasma is an off-label use.

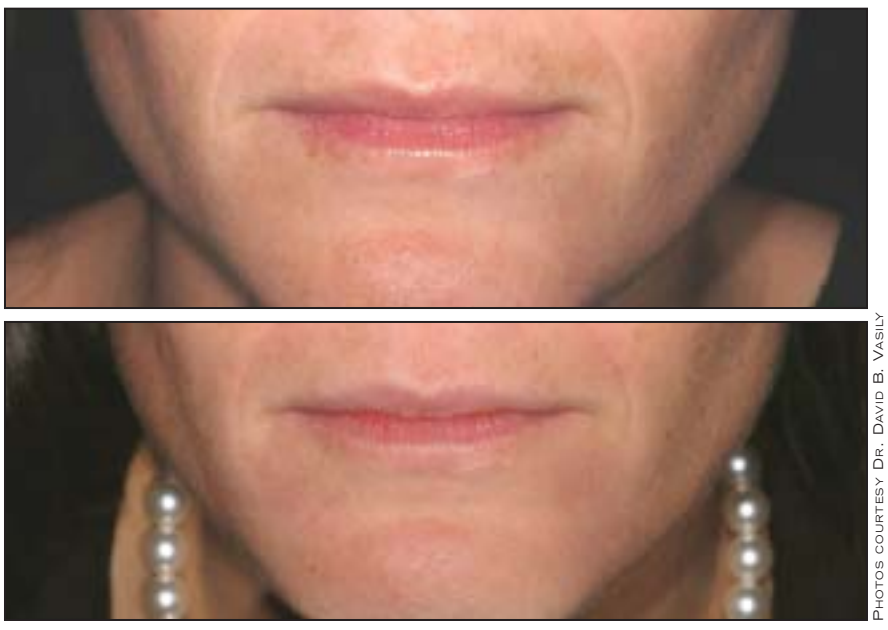
Treatment was with a handpiece measuring 15 mm in diameter that produces at least 320 microbeams per pass. Each patient received four passes at a fluence of 10-15 mJ per microbeam and a 10-ms pulse duration. Topical anesthesia was not used; the average pain score was 4.4 on a scale of 0-10.

Erythema and edema did not appear after every treatment, and when it did occur it resolved within 72 hours.

Blinded assessments of before and after photographs showed an average 51% reduction in melasma at 3 months after the final treatment, with two patients having virtually complete clearance, said Dr. Vasily. The response was judged to be excellent (75%-100% resolution) in four patients, and good (50%-75% resolution) in another four patients.

All patients had some degree of pigmentation lightening that was maintained during follow-up, with no episodes of repigmentation or hyperpigmentation. Overall, these responses compare favorably with what is usually achieved with conventional treatments in patients who respond to those treatments, Dr. Vasily said.

He suggested that a better level of response might be seen in a study that enrolled all comers rather than one that focused entirely on the patients who had not responded to other treatments. ■



PHOTOS COURTESY DR. DAVID B. VASILY

Before and after images of a patient in the pilot study showing the effect of four treatments of a 1,540-nm fractional laser for melasma at 3-week intervals.

Pure Hyaluronidase Beats Compound for Correction

BY JANE SALODOF MACNEIL
Senior Editor

PHOENIX — Consider keeping hyaluronidase for injection on hand for repairing problems caused by hyaluronic acid fillers and not relying on compounded forms of hyaluronidase, Dr. Alastair Carruthers advised at a clinical dermatology conference sponsored by Medicis.

"Vitrase [hyaluronidase for injection] is a pure form of hyaluronidase, and it is of consistent efficacy," said Dr. Carruthers, clinical professor of dermatology at the University of British Columbia in Vancouver.

Compounded products might contain ingredients that cause reactions, he warned. They also are inconsistent in their activity.

"You can have up to a 10-fold difference in the activity, and clearly that is important," he said. "If you are using 10 units to get rid of a lump or 100 units—that is a big difference."

A naturally occurring protein enzyme, hyaluronidase makes connective tissue more permeable through hydrolysis of hyaluronic acid. "It eats hyaluronic acid," Dr. Carruthers said. Ista Pharmaceuticals in Irvine, Calif., manufactures Vitrase from the purified testicular hyaluronidase of sheep.

The Food and Drug Administration approved Vitrase for use in increasing the absorption and dispersion of other injectable drugs in 2004. The FDA reported the rate of adverse events, including allergic reactions, to be less than 1%. Because the drug could spread infection or inflammation, the FDA advised that it not be used in areas that are swollen by bites, stings, infection, or inflammation.

'You can put in as much [hyaluronidase] as you feel like, but typically maybe 20 units is enough.'

DR. CARRUTHERS

Using too much hyaluronidase for injection to correct a bump or other problem is not a concern, Dr. Carruthers said.

Hyaluronidase comprises only about 3% of human skin and it turns over in about 24 hours. "You can put in as much as you feel like, but typically maybe 20 units is enough to get rid of almost everything," he said.

Having hyaluronidase for injection on hand in the dermatology office "prevents problems," said Dr. Carruthers. He noted that vascular occlusion has been reported in rare cases with hyaluronic acid fillers.

Though cause and effect was not proven, he said occlusions have cleared after injection of large doses of hyaluronidase. "That is one of the reasons I have hyaluronidase in my office." ■

New Ultrasound Device Found Safe, Effective for Raising Brows

BY MITCHEL L. ZOLER
Philadelphia Bureau

GRAPEVINE, TEX. — A new ultrasound device was safe and effective for raising the brow line, smoothing facial wrinkles, and adding definition to the jowl line in a study with 33 evaluable patients.

"Ultrasound appears to be a safe, new modality for brow movement. The procedure appears to be extremely safe, and we expect to improve efficacy as the treatment is further refined," Dr. Murad Alam said at the annual meeting of the American Society for Laser Medicine and Surgery.

"This is a fascinating new technology with no side effects and no down time. The results were very impressive, with a dramatic improvement in elevation of the brow," commented Dr. Jeffrey S. Dover, a dermatologist in private practice in Chestnut Hill, Mass.

The device emits an ultrasound beam that was focused 4.5 mm below the skin surface. The goal is to produce thermal coagulation that tightens subepidermal tissue while leaving surface skin unchanged. The investigational device is made by Ulthera Inc. The company is in the process of collecting clinical data to submit to the Food and Drug Administration for device approval, said a company spokesman.

Clinically significant elevation of the eyebrow occurred in 90%, rising an average of 1.7 mm.

DR. ALAM

The study involved 35 people, aged 40-65 years, and mostly women, with mild-moderate facial laxity. After baseline photography and application of a topical anesthetic, treatment was done as a single pass, in linear arrays up to 25-mm long at 5-mm intervals over the entire face and neck. The ultrasound beam was set at 7.5 MHz at a power of 15-30 W, with exposure durations of 10-80 milliseconds on the temple, preauricular area, submental area, and neck. An ultrasound beam of 4.4 MHz at 30-40 W was applied for 10-80 milliseconds on the cheeks using a second type of probe. The total energy from each pulse delivered 0.4-1.2 J.

Ninety-day follow-up was available for 33 of the 35 treated patients. Clinically significant elevation of the eyebrow line occurred in 90%, with their brow line rising by 1.5-2.0 mm with an average rise of 1.7 mm. The result was that the eyes opened and the eyebrows appeared raised, said Dr. Alam, chief of cutaneous and aesthetic surgery at Northwestern University in Chicago.

Other common clinical effects were a reduction in forehead static lines, and in periorbital static lines (crow's feet). Also, the jowl line of most patients became better defined, and their neck lines became more recessed. These subjective assessments were made by blinded graders.

The pain of the procedure was graded as 2-8 (on a 10-point scale). The higher pain scores were rare and were given mostly by patients who had no prior history of a cosmetic procedure.

In no case did the pain lead to stopping treatment. About two-thirds of treated patients developed a mild-moderate erythema and edema that resolved within 1 day of treatment. No patients developed scars, erosions, infections, or muscle or neuron injury.

The study by Dr. Alam was funded by a grant by Ulthera to Northwestern University; Dr. Alam had no individual disclosures in his relationship with the company. ■