Cosmetic Devices Get Mixed Marks From Panel

BY BETSY BATES

Los Angeles Bureau

SANTA MONICA, CALIF. — Live video demonstrations of several novel laser and laserlike devices generated mixed reviews from a panel of dermatologists.

Panelists at a cosmetic dermatology seminar sponsored by Skin Disease Education Foundation disagreed about the safety and efficacy of several of the devices, although they came to a meeting of the minds on some points, such as the "feel-good" potential of microdermabrasion devices.

What follows is a recap of many of the thumbs-up, thumbs-down impressions aired at the meeting.

Portrait Plasma

"I have to say I'm truly impressed with this device," said Dr. Christopher Zachary, professor and chair of dermatology at the University of California, Irvine.

"I'm not sure why it hasn't caught on."

The DermaSweep dermabrasion device is 'great for the patient who comes in and just wants to know what an aesthetic procedure is like.' The Portrait Plasma device, manufactured by Rhytec, derives its heat energy from nitrogen plasma rather than from a laser.

Treatment of photodamage, including fine lines and wrinkles, is attained by using a variety of energy

levels up to 5-6 J, a setting that leaves behind significant erythema.

At about 4 J, the epidermis appears bronzed, with the skin remaining intact for several days "like a natural dressing," Dr. Zachary said.

Dr. Mitchel P. Goldman, a dermatologist in private practice in La Jolla, Calif., expressed concern about the variability of the energy delivery.

"I've seen profound scarring with this device," he said. "I prefer a laser where I know exactly how much heat is going to be built up between each pass."

Dr. Zachary agreed that "there is no free lunch" with the Portrait Plasma. Double passes at 3.5-4 J could definitely produce scarring, although the device also has the potential for significant improvement in the skin, he said.

"Share [the potential of side effects] with the patient," he suggested. "Let them be part of the decision."

VariLite Laser

Dr. Bill H. Halmi, a Phoenix-based dermatologist, demonstrated the use of the VariLite dual wavelength (532 nm or 940 nm) laser, manufactured by Iridex, as a "spot welding device" that can target unsightly perinasal vessels by creating a dotted line of damage, leaving untreated millimeters of tissue between the spots.

"Go for little gaps" in the visible vessel line, Dr. Zachary said during the live video presentation.

As visual evidence of the vein disappeared under the beam of the laser, Dr. Zachary marveled, "Oh, that's very nice. It's better than sex!"

Dr. Zachary stressed the need for wearing protective goggles, preferably polarized for better visualization, when using the device.

Dr. Goldman offered a less rosy opinion. "This is the single most dangerous procedure to do. It puts holes in peoples' faces," he said.

Whitened skin evident in the video close-ups represents destruction of the epidermis. He also expressed concern that the laser has no epidermal cooling system to prevent permanent heat damage.

Beyond the safety concerns, Dr. Goldman questioned the permanence of the VariLite treatment. Red telangiectasias seen at the nasal alar area originate from the nasolabial artery and "will always come back," he pointed out. "[I would] never, ever tell a patient it's permanent,

and I don't think it's better than sex."

DermaSweep

One of a wide variety of dermabrasion devices, DermaSweep (developed by CosMedic) requires no anesthesia and is becoming a popular modality among physicians, said Dr. Zachary.

This particular unit uses suction to draw the skin close to a variety of different bristles that range from "a silky, superficial ... polisher to aggressive bristles," he said.



The device is said to enhance penetration of infusions of hyaluronic acid, vitamin C preparations, and Levulan (DUSA Pharmaceuticals Inc.).

"There is no way an infusion of hyaluronic acid is going to do a darned thing beyond 1-2 days," said Dr. Goldman. He also questioned its use in patients with a propensity to develop telangiectasias, such as those with rosacea.

Physicians should understand that if they use it prior to a light peel, the peel will become a deep peel with all of the associated side effects.

This said, Dr. Goldman acknowledged

that the DermaSweep is an "outstanding machine" and that he uses it in his spa and on patients receiving photodynamic therapy.

All of the panelists commented on the immediate smoothing created by the low-impact device.

"It feels good for a day," said Dr. Margaret Mann, who is with the department of dermatology at the University of California, Irvine. "You get what you pay for."

She said, however, that she also uses the device to enhance penetration of aminolevulinic acid before photodynamic therapy, and she sees it as a nice introductory procedure. "It's great for the patient who comes in and just wants to know what an aesthetic procedure is like," Dr. Mann said.

Once such a patient feels comfortable, he or she "might move on to something more aggressive," she suggested.

Dr. Zachary disclosed that he has received equipment loans from Rhytec, Iridex, and CosMedic.

Dr. Goldman, Dr. Mann, and Dr. Halmi had no disclosures relating to the products mentioned in this article.

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CO₂ Laser Offers Long-Term Efficacy

BY ROBIN TURNER

Senior Editor

acial resurfacing using a $\rm CO_2$ laser is a safe and effective treatment for rhytids demonstrating long-term results, according to a retrospective study of 47 patients who underwent an entire facial resurfacing procedure.

Dr. Shan R. Baker of the department of otolaryngology–head and neck surgery at the University of Michigan, Ann Arbor, performed the procedure from December 1996 to December 2004 using a commercially available CO₂ laser to assess long-term effects and complications of full-face CO₂ laser resurfacing. Particular attention was given to the incidence of hypopigmentation that was evident by photo-

Patients with hypopigmentation had a greater response than did patients who did not develop hypopigmentation (73.9% vs. 41.8% mean improvement).

graphic review, according to Dr. Baker and Dr. P. Daniel Ward, also of the university (Arch. Facial Plast. Surg. 2008;10:238-43).

Sixty-two patients who underwent entire facial laser resurfacing initially were identified. Com-

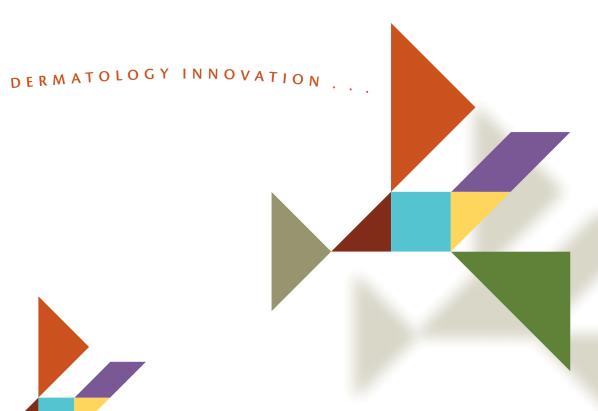
plete data were available in 46 patients with Fitzpatrick skin types I, II, or III and 1 with skin type IV. The mean follow-up was 2.3 years. Many of the patients had other procedures at the time of the resurfacing, including dermabrasion, ble-pharoplasty, brow lift, and rhytidectomy.

The mean improvement in facial rhytid score was 45%, according to the researchers.

Reported complications included milia or acne in 14 cases (30%), hyperpigmentation in 8 cases (17%), hypopigmentation in 6 cases (13%), infection in 1 case (2%), and ectropion in 1 case (2%). The only complications present after 1 year of follow-up were six cases of hypopigmentation and one case of hyperpigmentation. Postprocedure hyperpigmentation was treated with topical hydroquinone. The case of persistent hyperpigmentation at the 1-year follow-up had resolution within 2 years of the procedure.

Patient response to treatment was assessed by comparing the mean improvement in rhytid scores with and without hypopigmentation. The researchers noted that patients with hypopigmentation had a greater response to treatment, with 73.9% mean improvement, than did patients who did not develop hypopigmentation (41.8% mean improvement), a statistically significant difference.

The researchers, who had no conflicts to report, said the results confirm previous studies that found CO₂ laser resurfacing leads to long-term improvement in facial rhytidosis.



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