Cosmetic Tx Lasts Longer With Boost From Botox

BY JANE SALODOF MACNEIL
Southwest Bureau

PHOENIX, ARIZ. — Adding Botox therapy to cosmetic dermatologic treatments can "extend the results for virtually everything we do," Jean Carruthers, M.D., said at a clinical dermatology conference sponsored by Medicis.

Clinical studies have already shown that combining botulinum toxin type A with broadband light therapy and with nonanimal stabilized hyaluronic acid can produce better results than a single therapy, reported Dr. Carruthers, an ophthalmology professor at the University of British Columbia, Vancouver.

"It makes so much sense to use them together," she said of Botox and Restylane, a nonanimal stabilized hyaluronic acid filler approved for use in the United States. "Botox halts active frown, and Restylane helps the dermis."

Dr. Carruthers cited a prospective study she conducted with her husband Alaistair Carruthers, B.M., of the same university. They randomized 38 adult females with moderate to severe glabellar wrinkles into two cohorts for a comparison of Restylane therapy alone with Restylane plus Botox.

The investigators reported that the women given both treatments "showed a better response both at rest and on maximal frown." The combination treatment also lasted longer. Median time to preinjection furrow status was 32 weeks for the combination patients, compared with 18 weeks for those treated only with the filler (Dermatol. Surg. 2003;29:802-9).

In another study, they randomized 30 women with moderate to severe crow's feet to two groups: one treated only with broadband light therapy and the other to light therapy plus Botox treatment. For this experiment they used Intense Pulsed Light from Lumenis Ltd. of Yokneam, Israel.

Median time to preinjection furrow status was 32 weeks for the combination patients, compared with 18 weeks for those treated only with the filler.

The Carruthers reported that all patients showed improvement when their faces were at rest and smiling, but the patients given both treatments improved more. Skin biopsies revealed an increase in dermal collagen for both groups. The researchers also reported improvements in lentigines, telangiectasia, and skin texture (Dermatol. Surg. 2004;30:355-6).

Dr. Carruthers called the synergy with the light system exciting. "Does IPL [intense pulsed light] stimulate new dermal collagen deposition?" she asked. "Does Botox stimulate new collagen formation in the dermis? Is it just IPL, or is Botox additive?"

Dr. Carruthers' commercial disclosures include Allergan, maker of Botox; Medicis Pharmaceuticals, distributor of Restylane; and Lumenis. She said she is a consultant to and investor in Allergan. ■

Aminolevulinic Acid Plus IPL Recommended for Photoaging

BY KERRI WACHTER
Senior Writer

LAKE BUENA VISTA, FLA. — The adjunctive use of aminolevulinic acid with intense pulsed light treatment appears to be more effective than the light therapy alone for the treatment of photoaging, said Ashish Bhatia, M.D., at the annual meeting of the American Society for Laser Medicine and Surgery.

Aminolevulinic acid (ALA) 20% topical solution is currently approved for the treatment of actinic keratoses of the face and scalp. "Many studies have suggested that the adjunctive use of ALA with intense pulsed light [IPL] can enhance the therapeutic effects of IPL used for photoaging," said Dr. Bhatia, a dermatologist in Naperville, Ill.

In a prospective study, 20 patients received treatment with ALA and IPL on one side of the face and IPL alone on the other. The trial was conducted at the facilities of SkinCare Physicians of Chestnut Hill in Boston.

Materials, equipment, and funding for the study were provided by DUSA Pharmaceuticals Inc., maker of Levulan Kerastick (ALA).

Patients underwent five treatments 3 weeks apart. The first three treatments were split face. For the ALA treatment, patients first underwent a vigorous acetone scrub. Once the ALA was applied, it remained in contact with the face for 30-60 minutes before being washed off. Both sides of the face were then treated with IPL. The final two treatments consisted of IPL alone.

A blinded investigator evaluated patients for five photodamage parameters—global photodamage, fine lines, mottled pigmentation, tactile roughness, and sallowness—prior to every treatment and 1 month of follow-up. Each parameter was rated on a 0-4 scale. Each patient also rated satisfaction for each side of the face at the end of the study. A blinded investigator was also asked to perform cosmetic evaluations at the end of the study.

Pretreatment with ALA resulted in significant improvement in global photodamage scores and in mottled pigmentation. Treatment with ALA resulted in significantly greater reductions of mottled pigmentation and fine lines (to low or imperceptible levels) than IPL alone.

Patient satisfaction was greater for the ALA combination treatment than it was for IPL alone. Likewise, the blinded investigator cosmetic evaluation was greater for the combination treatment than for IPL alone.

Both treatments were well tolerated, with very little difference between the two in terms of adverse effects, Dr. Bhatia said. ■

Laser Hair Removal Works Better With Optical Clearing Agent

BY KERRI WACHTER
Senior Writer

ORLANDO, FLA. — Topical application of a special agent to improve the optical properties of darker skin types appears to significantly improve the efficacy of laser-assisted hair removal with fewer epidermal side effects, according to data presented at the annual meeting of the American Society for Laser Medicine and Surgery.

By using an optical clearing agent to improve laser light penetration at the skin surface, "we believe that in darker skin types … types I-V … we can definitely improve laser hair removal," said Misbah Khan, M.D., a laser surgery fellow at the Beckman Laser Institute at the University of California, Irvine.

The optical clearing agent—a polypropylene and polyethylene glycol mixture—decreases dermal scattering of light, thereby increasing laser light penetration. Once the optical clearing agent is applied to the skin, it is easier to see the dermal portion of the hair shaft, which led the researchers to suspect that it might also be easier to treat the hair.

In the study, the optical clearing agent was applied to one of each of 13 volunteers' underarms at least 2 hours prior to a single treatment with an alexandrite laser (GentleLase by Candela Corp.) in combination with cryogen spray cooling. The other side was treated with laser alone. Laser treatment was performed at various fluences depending on the volunteer's skin type, but both underarms of a single patient received the same fluence.

Hair counts in each area were performed before and 2 months after the procedure. Representative hairs also were clipped at the widest point of the base before and 2 months after treatment to determine hair diameter. In addition, the researchers assessed the areas for hyperpigmentation, hypopigmentation, and scarring.

"We were able to achieve more than a 70% reduction [in hair count] in a single treatment with the help of the optical clearing agent," said Dr. Khan. However, there was no significant difference in diameter between areas receiving the optical clearing agent and those receiving laser treatment alone.

In addition, with the use of the optical clearing agent, "we were able to substantially increase the depth and the extent of the thermal damage, and the immediate side effects of the laser-assisted hair removal were minimized to the degree that we didn't really see any," Dr. Khan said. A few volunteers required topical steroids for a day or 2 after the procedure on the side that did not receive the optical clearing agent.

Biopsies also were collected for histologic analysis. Cell viability stains were performed to assess the amount of thermal damage to the hair follicle. Hair follicles in areas treated with the optical clearing agent had much more evidence of thermal damage than did those in areas treated with laser alone.

The results are promising because even though several hair removal options are available for those who are considered to be good candidates, "there are limited treatment options available for people who are not good candidates, for example people with darker skin types and who also have dark hair," Dr. Khan said.

Longer wavelengths of laser light are one option because these do penetrate deeper. They are not well absorbed, though. Using shorter wavelengths instead typically leads to epidermal burns. The researchers believe that the optical clearing agent improves laser hair removal in patients with darker skin by allowing the use of shorter wavelengths while still avoiding dermal injury. ■

VERBATIM

'It keeps us reading and keeps us interested, because it's also a social event. We'll have a beer and some pretzels, but we're serious. What the journal club has helped me do is to think and read critically. Many articles make statements of fact that aren't validated by the data they use to present those facts. They make up conclusions, but they can't really back them up.'

Dr. Richard J. Castiello, on particiapting in a journal-reading club, p. 82