

Venturing to the Glabella and Beyond With Botox

BY CAROLINE HELWICK
Contributing Writer

NEW ORLEANS — Botox is not just for wrinkles anymore. Botulinum toxin injections can correct nasal tip droop, a gummy smile, flat eyebrows, and more, according to a dermatologic surgeon.

"Botox has revolutionized the treatment of the aging face, and new indications are penetrating into clinical practice," Dr. Timothy C. Flynn said. "I have enjoyed venturing outside the glabella, and I encourage you to do so."

A droop in the tip of the nose can occur with aging, and younger patients can have movement of the nasal tip when they talk, which lends a distracting appearance. "Using Botox, you can lift the tip of the nose a few millimeters to produce a more attractive appearance," Dr. Flynn of the University of North Carolina at Chapel Hill said at a dermatology update sponsored by Tulane University.

The depressor septae muscle is responsible for the nasal tip depression on contraction. A few units of Botox placed into each depressor septae will elevate the tip. This elevation is noted at rest because of the reduction in resting tone of the depressor muscle, he said.

A gummy smile can also be a problem. While it might not be the reason for the visit, such patients might say that they "hate to have their picture taken" or are "not photogenic" because of the degree of gum that shows when



PHOTOS COURTESY DR. TIMOTHY C. FLYNN

To improve this patient's gummy smile, Botox was used to allow less superior travel of the upper lip.

they smile. The levator labii superioris alaeque nasi and the parallel levator labii superioris can be relaxed with Botox to allow less superior travel of the upper lip.

"Injections of a few units in the perialar sulcus will relax these muscles. Go slow and start with one or two units in the perialar crease," Dr. Flynn said. "Patients are usually thrilled with the result."

Flat eyebrows can also be corrected to give them an arch. "We seek to have the portion of frontalis in the cen-

ter of each eyebrow fully functioning and, in fact, overcompensating for the portion of frontalis at the relaxed tip and tail of the brow," he said.

Treating the central glabellar complex and the tail of the eyebrow allows for this central hyperactivity. This also gives increased exposure of the skin overlying the upper tarsal plate, which makes it easier to apply eye makeup.

Dr. Flynn also advocated more aggressive use of Botox when treating crow's-feet. Traditionally, 12 units are injected periorcularly in the orbicularis oculi. Two to four units can be added inferiorly in the midpupillary line to increase the eye aperture. The inferior ocular wrinkles are also relaxed and improved, but wrinkles can persist in the lower lateral portion of the eyelid.

"Microinjections of toxin can be helpful here. Half units can be gingerly placed superficially to just relax those fibers close to the skin and thus decrease the crinkling of the lower eyelid," he said. "Key to this concept is to use no more than one unit, which you can do by increasingly diluting the Botox."

Dr. Flynn also uses Botox intraoperatively during facial reconstruction to relax muscles that might put tension on the wound. "I have had no complications doing this, except for one hematoma in a patient undergoing a flap reconstruction while on coumadin," he said.

Dr. Flynn disclosed that he has conducted research for and holds stock in Allergan Inc. ■

Fraxel Beats Pulsed Dye for Scar Treatment

BY SUSAN LONDON
Contributing Writer

VANCOUVER, B.C. — Fractional photothermolysis is superior to pulsed dye laser treatment for improving the cosmetic appearance of Mohs surgical scars and was preferred by all patients, despite being more painful, according to the first study comparing the two modalities.

The pulsed dye laser is the standard treatment for surgical scars, but it seems to primarily improve erythema, while fractional photothermolysis seems to mainly improve scar consistency, lead author Dr. Emily P. Tierney said in an interview.

It was surprising, then, to find that fractional photothermolysis outperformed the pulsed dye laser in reducing scar erythema. "My hypothesis in doing the study was that [fractional photothermolysis] would have improvements above and beyond the pulsed dye likely in terms of scar thickness and scar texture, but that the pulsed dye would have greater improvements in terms of the red component of scars," explained Dr. Tierney, a dermatologic surgeon with the Henry Ford Health System, Detroit.

The randomized, double-blind study, presented as a poster at the annual meeting of the American College of Mohs Surgery, involved 12 patients who had undergone Mohs surgery. All 12 scars were located on the face, neck, or chest, and 8 of them were hypopigmented.

In each patient, after application of lidocaine gel, half of each scar was treated with fractional photothermolysis (Fraxel SR, Reliant Technologies Inc.) and half treated with a pulsed dye laser (V-Beam, Candela Corp.). The patients received four treatments at 2-week intervals.

Dr. Tierney reported that she had no

conflicts of interest in association with the research.

The same blinded physicians assessed the scars at each treatment and 1 month after the last treatment. All assessments were done in person, which permitted better evaluation of the scars' 3-D features. The physicians rated cosmetic outcomes using a quartile scale, so a one-quartile increase corresponded to a 25% improvement.

Compared with pulsed dye laser, fractional photothermolysis resulted in significantly greater improvements in scar thickness (mean improvement, 50%-75% vs. 0-25%), scar dyspigmentation (75% vs. 25%), color and texture of the subset of

hypopigmented scars (50% vs. 0), and overall cosmetic outcome (75% vs. 50%). The two treatments both yielded a 50% improvement in scar texture.

Patients experienced significantly greater pain with the fractional photothermolysis than with the pulsed dye laser, according to Dr. Tierney, but neither treatment produced any other adverse effects.

At the end of the study, patients were offered additional treatment for the half of the scar with lesser improvement, and "uniformly, all of my 12 patients wanted the entire scar treated with Fraxel, so patients could see the significant difference between the two sides as well," she said, concluding that fractional photothermolysis appears to be the superior treatment and may expand the options available to patients.

All of the study patients started treatment 2-3 months after their surgery, but the best timing is unknown.

"That is something that we are going to have to look at in future studies—just where that optimal window is for scar remodeling," she commented. "Perhaps 2 months is too late or it may even be a little bit on the early side." To better define that optimal window, she and her colleagues are planning studies in which patients will be treated at varying times after surgery.

"The frequency of treatment is also an incredibly important variable in the success of both devices," she asserted, noting that treating patients every 2 weeks is very aggressive.

"I think the results that we got in terms of the before and after photos are greater than anything I have seen where people have treated with monthly or every-other-month types of intervals," Dr. Tierney concluded. ■



A scar is shown before being treated with pulsed dye (1) and Fraxel (2).



The same scar is shown after treatment using the two lasers as noted above.

PHOTOS COURTESY DR. EMILY P. TIERNEY

Isotretinoin, Dark Skin Not a Hair Removal Barrier

KISSIMMEE, FLA. — Dark-skinned patients who undergo hair removal with a 1,064-nm Nd:YAG laser while taking isotretinoin do not appear to experience any long-term complications, according to a retrospective study of 11 patients.

The near-infrared wavelength of the Nd:YAG laser is absorbed less efficiently by epidermal melanin than with some other lasers, Dr. Khalil A. Khatri said in a poster presented at the annual meeting of the American Society for Laser Medicine and Surgery.

The patients in the study underwent Nd:YAG laser (Cutera CoolGlide) treatments with a pulse duration of 10-30 milliseconds, a spot size of 10 mm, and a repetition rate of 2 Hz. Laser fluence ranged from 30 to 55 J/cm², wrote Dr. Khatri, who is in private practice in Nashua, N.H.

The patients stopped taking isotretinoin for 3 days before and after each laser hair removal treatment to reduce the severity of retinoid dermatitis. After 131 laser hair removal treatments, the patients—all of whom were taking isotretinoin for severe acne—had moderate erythema and perifollicular edema. No patients experienced vesiculation, scarring, or permanent pigmentary changes during follow-up visits, which occurred at intervals of 4, 10, or 12 weeks, he reported.

Only one patient with Fitzpatrick type V skin developed discrete crusting, which resulted in a slight hyperpigmentation that spontaneously resolved in 3 months, after the last and most intense treatment with the highest fluence used, noted Dr. Khatri, who has no financial interest in the products used in the study.

—Jeff Evans