Botox Put to Innovative Uses in Facial Surgery

BY BETSY BATES
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LAS VEGAS — The use of botulinum toxin type A in a dermatologic surgical practice extends far beyond touching up the results of a brow lift or smoothing crow's feet to complement a facial laser procedure.

Surgeons speaking at the annual meeting of the American Society of Cosmetic Dermatology and Aesthetic Surgery said that they have incorporated botulinum toxin type A (Botox) into many facets of their practice, from stabilizing healing tissue to treating fellow surgeons' sweaty palms.

"Botox is a great adjunct to surgery," said Dr. Steven Dayan, a facial, plastic, and reconstructive surgeon and otolaryngologist in Chicago.

Dr. Dayan injects every patient undergoing a forehead lift with Botox to immobilize the frontalis muscle and prevent scars from being pulled apart. "It helps quite a bit in closing these scars and keeping the area splinted," he said.

Dr. Joel Cohen, a dermatologist and Mohs surgeon in Denver, uses the same immobilizing effect of Botox to hold tissue in place following extensive Mohs cases of the face.

If a nerve is weakened during surgery, Botox can restore symmetry of the face, said Dr. Dayan. He uses it to smooth platysmal bands that remain following a neck lift, to rotate the nasal tip upward when it has become elongated with age, and to raise the corners of the mouth.

He's even used it on surgeons' hands—once they've signed explicit informed-consent agreements—to reduce perspiration in their surgical gloves.

Despite the risks, some surgeons are so concerned that their hands become slippery in their gloves during procedures that they are more than willing to undergo Botox injections, Dr. Dayan said. ■

Plasma Device Cuts Downtime After Wrinkle Treatment

PALM DESERT, CALIF. — Performing repeated plasma skin resurfacing at low fluences improves wrinkles and results in much less patient downtime than does the use of higher fluences, Dr. Melissa Bogle reported at the annual meeting of the American Society for Dermatologic Surgery.

Many previous case series of plasma skin resurfacing have reported patients undergoing a single treatment with a fluence of 3-4 J/cm^2 and with downtimes of 5-10 days. The procedure is a nonablative one, but the skin turns bronze, and it sloughs off after a treatment.

In Dr. Bogle's series, eight patients were treated at fluences of 1.2- 1.8 J/cm^2. At that energy level, the sloughing was complete in an average of 4 days, with some variation, said Dr. Bogle, who practices cosmetic laser dermatology in Houston but who conducted the research during a fellowship in Boston with Dr. Kenneth Arndt.

The plasma device, the Portrait PSR^3, produces energy by exciting nitrogen gas to create a plasma. The technology is considered to give more profound results than other nonablative modalities but somewhat less than a CO_2 laser, she said.

Each patient in the series received three full face treatments, one every 3 weeks. Sloughing lasted longer after the first treatment (average 9 days) than after the second and third treatments (4 days).

Erythema persisted for 6 days and tended to be mild. The average erythema score of the patients following a treatment was 1.8 on a 0-4 erythema scale, which Dr. Bogle described as being "between minimal and mild, closer to mild."

Dr. Bogle could not account for why sloughing lasted longer with the first procedure. Some experts now use even lower fluences than she used in her study, and a lower fluence for the first treatment than for the second and third.

The investigators rated the improvement in facial rhytids at 23% after 1 month and 37% after 3 months. Histologic samples taken from the upper lip area of six of the patients before and after treatment showed an increase in collagen thickness at the dermal-epidermal junction and less dense elastin in the collagen zone.

Dr. Bogle received a research grant from Rhytec, the maker of the Portrait device.

—Timothy F. Kirn