#### OCULOPLASTICS

## The Nonsurgical Brow-Lift: Pleasing Patients and Diversifying Practices

BY BARBARA BOUGHTON, CONTRIBUTING WRITER

yelid surgery has long been one of the more popular plastic surgeries, but in recent years, oculoplastic surgeons have come to recognize the draw of the brow-lift, too. "We do an awful lot of eyelid surgery. But there's been an evolution in recent years. We recognize that the eyelid, the brow and the forehead are all connected. So someone who is hoping for a more youthful appearance may be disappointed if they just get their eyelids treated and nothing else—especially if their brow is covering their eyelids," said Evan H. Black, MD, associate professor of ophthalmology at Wayne State University and director of ophthalmic, plastic and orbital surgery at the Kresge Eye Institute in Detroit.

In fact, the recent financial recession has resulted in a boom in chemical eyebrow lifts. There may be two reasons for this: Consumers who balk at the price of surgery are more willing to pay for the more affordable nonsurgical procedure, and ophthalmologists regard the relatively easy chemical lift as a means to increase revenue in their practices.

#### Economy Down, Eyebrows Up

"Patients who might not have blinked several years ago at a \$5,000 surgical fee are looking for less expensive options. They are willing to pay several hundred dollars for a chemical eyebrow lift that might make their face appear more open and youthful—especially if that youthful appearance

# Relaxing Muscles (and Wrinkles)

Over time, the corrugator, procerus and orbicularis oculi muscles pull the eyebrows down and leave glabellar folds and crow's feet. Chemical brow-lifts using Botox or Dysport relax these muscles and allow the muscles that pull the brow up, such as the frontalis, to function unopposed.

can help them hold on to a job, or snag one if they are unemployed," said Kimberly P. Cockerham, MD, an adjunct clinical associate professor of ophthalmology at Stanford University in Palo Alto, Calif. "And they are willing to come back regularly for chemical brow-lifts, or 'liquid lifts.' They look at them as some consumers do a haircut." Dr. Cockerham noted that demand for other plastic surgery procedures, such as liposuction and face-lifts, have also decreased in the past few years. "People are doing minimally invasive things that they view as less expensive. If you look at how much it costs to get repeated chemical brow-lifts, it is more expensive over five years than a onetime surgical brow-lift. But people are

thinking more about what a procedure will cost them now." Dr. Cockerham said that demand for chemical browlifts is so high that her practice does about 100 or more per month.

Cheap and easy for the young and restless. But in addition to being cheaper, chemical lifts require little recovery time and have fewer risks than surgical procedures. "People who get chemical brow-lifts tend to be those who want a brighter look to their eyes and a higher brow, but don't want invasive surgery. They may not have a lot of skin to remove surgically, and they're not sure they want the permanence of a surgical procedure," said Philip R. Rizzuto, MD, clinical assistant professor of surgery at Brown

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University in Providence, R.I. Dr. Black agreed, "Chemical brow-lifts are for younger, active patients who really don't want a convalescent period where they're swollen and bruised."

#### How to Do a Chemical Brow-Lift

Chemical brow-lifts are accomplished with the use of either botulinum toxin A (Botox) or abobotulinum toxin A (Dysport). Both products relax the corrugator, procerus and orbicularis oculi muscles that pull the eyebrow down. The muscles that pull the brow up, such as the frontalis, can then function unopposed. The desired effects last from three to six months.

#### Combining other approaches.

Sometimes drugs for brow-lifts are used in combination with other non-surgical approaches, such as laser peels that tighten the forehead and elevate the eyebrow, or fillers placed under the eyebrow that provide the appearance of a lifted brow. Choosing among these and deciding whether they might be used together depends on the aesthetic results the patient wants as well as particulars in the patient's pre-procedure appearance.

Patients with an eyebrow that is pulled down, giving an appearance of frowning, will benefit more from Botox or Dysport while those with a deep-set, sunken look to their face who have lost fat under the brows can benefit from fillers, Dr. Black said. "A filler can make the area under the brow look plumper and more natural and provide a little lift. But some patients can benefit from a combination of chemical lifts," he added.

Patient expectations. As with any procedure, it's important to let patients know what to expect. The disadvantage of eyebrow lifts with Botox and Dysport is indeed that they are only temporary and can lift the brow by only a few millimeters, while a surgical procedure can lift it up to a centimeter or more. "The lift with a chemical eyebrow procedure is not going to be five millimeters," Dr. Cockerham said. "I tell people 'This is not going to be a super-huge change."

To administer. "I use a 30-gauge

needle for Botox injections. The most common areas for Botox treatments are the glabellar folds, crow's-feet and forehead," said Dr. Black. "I do not use anesthesia as most patients experience only mild discomfort with the injections. Topical anesthetics can be helpful, however, for larger treatments," he said.

**How much?** Interestingly, the amount of time that the lift lasts doesn't just correlate with the amount of Botox or Dysport that is used but also depends on how the individual patient metabolizes the drugs over time, Dr. Rizzuto said. Consequently, each patient should be evaluated on an individual basis to assess the right amount of Botox or Dysport for lifting the eyebrow.

"I have a certain number of units per site that I use as an initial treatment," he said. "And I tell my patients that if they get a good result with this amount of Botox, they should continue it. Or if they'd like to try a little bit less and see if it works, that's great. But if you don't get the correction you want, then we may need to use a little bit more the next time."

**Potential mishaps.** Errors can occur with brow-lifts done with Botox and Dysport. There is a difference, for example, between lifting the brow and eliminating the appearance of wrinkles. "The biggest mistake I see is that people put Botox in the forehead and expect that to lift the brow. While that gets rid of forehead wrinkles, the effect of putting Botox in the forehead is to drop the brow because muscles there lift it," Dr. Black said. "So we need to watch out for that in patients with brow ptosis."

**Caution!** Dr. Black also warned, "Botox should not be injected deeply into the tissue around the eyes. It can track into the orbit and cause temporary ptosis." While drooping eyelids have nevertheless been reported, rarely, from the use of Botox, Dr. Rizzuto said, "If you do develop a drooping eyelid, it will resolve over time. The good—and bad—thing about Botox is that it lasts for only three to six months."

**Adverse effects.** The possible side effects from Botox or Dysport can include hypersensitivity in some patients, and there can also be pinpoint bleeding or black-and-blue marks around the needle insertion point. The most common adverse outcome is bruising, according to Dr. Cockerham. "I advise patients to avoid aspirin, ibuprofen and other NSAIDs, as well as vitamin E and certain herbals, including flaxseed, fish oil and garlic. If the patient is an easy bruiser, oral medicalgrade arnica is very helpful and can be started the day before the procedure. Also, any trauma to the face can result in a herpetic outbreak. Pre-medicating with Valtrex 500 mg twice daily starting the day before the treatment can be helpful."

#### The Benefits for a Practice

Chemical lift procedures are becoming more popular as a way to increase revenue in ophthalmic practices, and neither expense nor training is a particular obstacle for a fully trained ophthalmologist.

**Easy to learn.** Most surgical browlifts require training in plastic surgery, but training for chemical brow-lifts, such as those that require Dysport or Botox, can be accessed through the pharmaceutical companies that make these drugs. The companies can also connect physicians with mentors in their local area with experience in these procedures.

Botox and Dysport are approved for treating both cervical dystonia and glabellar lines, and Botox is also approved to treat strabismus and blepharospasm. For the cosmetic indication, Dysport is marketed by Medicis and Botox by Allergan.

"More and more ophthalmologists are interested in facial injectables or aesthetic procedures. And a chemical brow-lift is well within the skill set of the typical ophthalmologist. The learning curve for them is not steep. Ophthalmologists are attuned to performing sophisticated procedures on the eye and to working with surgeries that require small, fine hand movements, so chemical brow-lifts are easy

for them to get down and do well," Dr. Cockerham said.

Relatively inexpensive. Surgical brow-lifts—which include the coronal, the endoscopic and the direct brow-lift procedures—require a significant investment in training and equipment. Physicians who do surgical brow-lifts must have extensive working knowledge of facial and forehead anatomy and, if they perform endoscopic brow-lifts, use of an endoscope. And the physician's cost for performing a chemical brow-lift is much less than for surgical brow-lifts, which require anesthesia and significantly more staff with training in surgical techniques.

In the end, the decision over whether a patient will have a chemical or surgical brow-lift comes down to what is right for that individual. "If an ophthalmologist decides to offer chemical brow-lifts or other aesthetic procedures, the individual, patientailored approach is paramount," Dr. Rizzuto said.

The results tend to be much appreciated by patients. "People don't come in asking for a Botox brow-lift. But they do say, 'I don't like the 11s in my brow or looking like I'm frowning all the time.' So you administer Botox in the correct areas, and the furrows between their brows soften and their brows rise a little bit. They're really excited about the results. You need to make sure you're giving each patient your best; that's the key to success and ultimately a happy patient."

None of the physicians interviewed report related financial interests.

#### Learn More in Chicago

A course that may be helpful in preparing to do brow-lifts will be offered at the Joint Meeting in October. "The

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Cosmetic Facial Exam: A Systematic Approach to Maximize Blepharoplasty, Fillers and Botox," event code "241," will take place Sunday, Oct. 17, from 3:15 to 5:30 p.m.



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