

Consider Adding Volume in Periorbital Surgery

BY ROBERT FINN
San Francisco Bureau

SAN DIEGO — Tissue removal during traditional blepharoplasty is often a counterproductive approach, Robert Alan Goldberg, M.D., said at the annual meeting of the American Academy of Cosmetic Surgery.

Deflation caused by the progressive loss of subcutaneous, deep, and periorbital fat is the most important part of orbital aging, he added. And the solution is to add volume, which can be done several ways.

"Certainly removing tissue has its value," said Dr. Goldberg of the Jules Stein Eye Institute at the University of California, Los Angeles. "It helps us amortize our investment in surgical instruments, it's predictable, and it's technically straightforward. Compare that to adding volume. Adding volume is more difficult from a technical standpoint. It's less predictable with current technologies. And I'm only half kidding when I say that it renders scissors and scalpel obsolete. A lot of physicians have an emotional investment in surgery."

While patients often complain of excess skin around the upper and lower eyelids, Dr. Goldberg says he believes in most cases the body is not making new tissue. What is happening is a loss of elasticity, which can be addressed by resurfacing and other skin-rejuvenation techniques.

Traditional blepharoplasty often results in an aging—not rejuvenation—of the periorbital area, as it tends to emphasize hollows that result from the loss of fat.

"In the paradigm of removing tissue, we study the face

for evidence of fullness, and I'm not arguing there's no role for that," Dr. Goldberg said. "But there's another paradigm of adding tissue in which we look for hollows."

In the lower periorbital region, Dr. Goldberg has identified three hollows. One he calls the "orbital rim hollow," along the bony rim. Then there is the "septal confluence hollow" at the edge of the orbicularis muscle. Finally the "zygomatic hollow" runs along the zygomatic ligament.

The upper eyelid also is characterized by hollows. "What I see is deflation of that eyebrow fat pad," Dr. Goldberg said. "If you thought of this as a breast with breast ptosis, it's become flattened, and it's sagging. It's the same principle."

Several techniques may fill those hollows:

► **Fat injections.** For years, Dr. Goldberg's favorite technique was fat injections. "Although the periorbital area can be tricky, with some skill and a reasonable amount of luck you can get a pretty smooth improvement there," Dr. Goldberg said. "But when it doesn't work, it's difficult. Fat can really be lumpy and granulomatous."

► **Fat transfer.** For the lower periorbital area, Dr. Goldberg often releases the orbital fat surgically and uses it to fill the orbital rim hollow. He uses a transconjunctival subperiosteal approach. This technique seems to work particularly well in patients who truly have an anterior projection in the bags under their eyes.

With the upper eyelid, Dr. Goldberg uses what he calls an "eyebrow brassiere suture." The concept is to fixate the inferior edge of the eyebrow fat pad, lifting and fill-

ing the pad in three dimensions. "This is not a brow-lifting suture," he said. "What we're doing is stabilizing the brow in three dimensions, trying to refill the brow fat pad and recreate that beautiful full convexity of youth."

► **Implants.** This technique, which is both safe and effective, has a role, especially in cases of severe hollowness.

► **Synthetic fillers.** In many cases synthetic fillers are best, Dr. Goldberg said. He particularly likes the hyaluronic acid gels because they're very forgiving. (Dr. Goldberg serves on the scientific advisory board of Medicis Pharmaceutical Corp., which makes Restylane.)

The injection technique must respect the delicate anatomy of the periorbital region. Dr. Goldberg uses a multiple-injection feathering technique for the lower periorbital region, trying to place the filler below the orbicularis but above the bony orbital rim. He uses a series of fanning passes, often injecting as many as 100 times. "The key is to get a very soft, even, feathered distribution. Any lump shows up like the princess and the pea," he said.

These injections last 6 months, after which a patient needs a repeat procedure. "I think that's one of the beauties of this whole paradigm," he said. "The fact that it's not permanent is part of its beauty both for the patient and the ... physician."

The key, though, is to make the paradigm shift from looking for excess tissue to analyzing facial hollows. This paradigm, he says, is safer, more effective, and less destructive of tissue. And, compared with traditional blepharoplasty, it allows the physician to do a better job of facial rejuvenation using a minimally invasive approach. ■

Donor Density Only Limiting Factor in Hair Transplantation

BY DAMIAN McNAMARA
Miami Bureau

MIAMI BEACH — Modern-day hair transplantation yields high patient satisfaction and a low risk of side effects, according to a presentation at a symposium sponsored by the Florida Society of Dermatology and Dermatologic Surgery.

Dermatologists who offer hair transplantation must battle the legacy of poor techniques and suboptimal outcomes from previous techniques. With more advances in technology, donor hair density is the only limiting factor, said Marc R. Avram, M.D., of the department of dermatology, Weill Cornell Medical Center, New York.

Even though consistent, natural-looking results are now the rule rather than the exception, practical tips can help optimize outcomes. Dr. Avram recommends using polarized light with magnification for both donor and recipient zones. Other keys to success include thorough staff training and good office ergonomics because the work is labor intensive. Dr. Avram said it takes three to five assistants 40-60 minutes to create 1,000-1,500 follicular grafts. Each graft unit consists of one to four hair follicles.

Physicians employ elliptical donor harvesting for more than 95% of patients. An elliptical donor strip of hair is taken from the back of the scalp. The width of the ellipse should be no greater than 1 cm and should be longer rather than wider, Dr. Avram said. Exercise care when working on the area behind the ears and below the occipital protuberance because of higher risk of broad or hypertrophy scarring. Place the blade into subcutaneous tissue

and check the angle of the blade every 2-3 cm to monitor transaction of hair follicles; the angle of hair follicles can change across the back of the scalp, he added. Undermine the graft only if necessary.

Less common is 1.25-1.5 mm punch harvesting. Fewer than 5% of patients are potential candidates. People with limited hair loss in the recipient site (from a trauma or scar) or those with limited donor tissue because of a history of multiple surgeries are typical candidates for this technique.

Patients can resume normal activities immediately after the procedure but should avoid heavy exercise for 1 week. Patients are instructed to wear an overnight dressing and take oral antibiotics for 5 days. Dr. Avram also prescribes Tylenol 3, one to two tablets every 4-6 hours as needed and instructs patients to call if pain or discomfort persists beyond the first night. He also typically prescribes prednisone 40 mg to be taken for 3 consecutive days.

Special considerations for women undergoing hair transplantation include an increased risk of telogen effluvium and a more unpredictable donor region. All three hairlines—the frontal, temporal, and posterior—generally remain intact in women. So the goal of hair transplantation in this population is to increase hair density within these stable hairlines.

The future of hair transplantation will feature improved instrumentation, robotics, and cloning, Dr. Avram said. For example, lasers will be able to separate one to three hair grafts with zero transection. Robotics may assist implantation. And if hair cloning becomes a reality, it will alleviate the limiting factor of donor hair density. ■

Multiple Passes, Reduced Settings Tighten Tissue With ThermoCool

SCOTTSDALE, ARIZ. — Radiofrequency tissue tightening using ThermoCool's ThermoCool TC system has gained favor for wrinkle reduction with the standard use of a single pass of the device, but better results and greater tolerance are seen with a multiple-passes approach using reduced treatment-level settings, said Bill H. Halmi, M.D., at a meeting sponsored by the Skin Disease Education Foundation.

The ThermoCool system, which has received Food and Drug Administration approval for smoothing wrinkles and sagging skin around the face, has yielded only modest results, and subtle changes were often not even noticeable, said Dr. Halmi, a dermatologist and owner of Arizona Advanced Dermatology in Phoenix.

Furthermore, the treatment was not without some discomfort, and early safety observations showed a 6% rate of scarring or texture change 6 months post treatment.

In a new technique introduced last year by Brian Zelickson, M.D., however, use of multiple passes in a single treatment with lower frequency showed the achievement of greater deep-collagen denaturation. In addition, the already rare risk of surface tissue damage was further decreased, as was patient discomfort.

Dermatologists including Dr. Halmi have picked up on the multiple-passes approach and report much improved results. "The newer treatment paradigm is much better tolerated, reduces the risks, and appears so far to offer better results," Dr. Halmi said.

With the multiple-passes approach,

frequency should be reduced and as many as four or five passes can be used. "One pass is made over the entire surface area, then on the second pass you concentrate on the areas of interest, and you can go on to four or five passes on the face to reach a clinical point of physical tightening," Dr. Halmi said.

Since there is immediate collagen contraction, visible results are seen right away, but this response usually lasts only a matter of hours or days. It typically takes about 2 months, however, to see the maximum results of the more important secondary response showing collagen remodeling and tightening.

While radiofrequency (RF) waves have long been used in dermatology for purposes such as electrocoagulation and skin resurfacing, the ThermoCool system is unique in that it uses a patented capacitive coupling to give greater uniformity in heating and tightening deeper tissue, Dr. Halmi explained.

The device also uses cooling before, during, and after the delivery of the RF energy to protect the epidermis.

Slides presented from Dr. Halmi's practice showed dramatic improvement in areas including the nasolabial fold, the jowls, and especially the neck.

"It turns out neck tightening is probably the area this [treatment] does the best in," Dr. Halmi said. "Using the 'traditional' protocol of one pass usually achieves at least subtle results, but multiple passes appear to be yielding much better results."

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—Nancy A. Melville