

PSP

PLASTIC SURGERY PRODUCTS

SOLUTIONS FOR YOUR PRACTICE

JANUARY 2006

Man of the House

*Dr. Lelmonaco, M.D.
Plastic Surgery*

A state-of-the-art plastic surgery practice in a restored historic residence

#BXNDYXS *****CAR-RT LOT**C-D27
#224027011 Z# SP 21 100 557 PSD1
JOHN M ALEXANDER 20580
ORAL SURGEON PD149
ORAL AND FACIAL SURGERY
7650 PARHAM RD S 110
RICHMOND VA 23294-4976



An Ascend Media Publication
www.alliedhealthjournals.com

Rare interview with
Maria Siemionow,
MD, PhD, DSc
page 40



The Open Brow Lift Revisited

by Joseph Niamtu, III, DMD

The trichophytic mini open lift may seem old-fashioned, but it has its advantages

The Trichophytic Lift

Yet another technique—the trichophytic mini open brow lift—may not be in the armamentariums of many surgeons, especially those who trained after endoscopic methods were introduced. To this group, any open technique may seem like a step backward, but the trichophytic lift warrants a closer look for incorporation into a surgeon's upper-face-rejuvenation repertoire.

This technique has many advantages:

- It does not raise the hairline, and it is a welcome alternative for patients with higher hairlines.
- It is simple, it can be performed with local and tumescent anesthesia, and it requires no specialized equipment.
- It is a subcutaneous dissection that does not rely on subperiosteal release for success.
- Because it is a direct-excision technique, brow elevation is immediate, pleasing the patient.

In my opinion, the failure to adequately release the periosteum and the related connective tissues is the most frequent reason why endoscopic techniques fail. The degree of brow elevation is not in doubt because it is proportional to the amount of forehead skin excised. Also, when performed correctly, the technique produces an imperceptible scar.

Some patients and surgeons may worry about the length of the incision. A point to keep in mind is that, combined, the five standard endoscopic brow incisions are approximately 15–16 cm long. The average incision in this open technique is about 14 cm long.

I explain this to patients, and most are not averse to the open technique. Frequently, a patient may choose this technique to avoid the resorbable screw fixation or bone tunnels associated with the endoscopic technique.

Patient Selection

As with any brow technique, a stable hairline is preferred. Any brow lift performed on a patient with an unstable hairline can produce undesirable scarring and future hair loss. Patients who wear their hair back may want to comb it down over their foreheads for several weeks; otherwise, patient selection is consistent with other brow-lift techniques.

My preferred brow-lift options for patients are the endoscopic, trichophytic mini open, and thread-lift techniques. The choice is

Brow and forehead lifting remain the sine qua non of a youthful and rejuvenated face. Ptotic brows and foreheads with lateral upper-lid hooding produce an aged and tired appearance. In many patients, upper-facial aging precedes lower-facial aging; and by the fourth decade, many patients will benefit from blepharoplasty and brow and forehead rejuvenation.

Although the foregoing may seem obvious, it is not uncommon to see patients who have undergone multiple blepharoplasty procedures without considering a brow or forehead lift. Unfortunately, these patients may not have enough upper eyelid skin left to perform a brow lift without causing lagophthalmos.

Many techniques have been described to lift the brow and forehead. (See the Recommended Reading list at the end of this article.) Surgeons who entered the aesthetic facial arena during the last decade may have learned that endoscopic techniques are preferred to lift the brow and forehead. The converse may be said about surgeons who trained several decades ago and have yet to embrace endoscope technology.

Although some practitioners still prefer the coronal brow and forehead lifting technique, this method has largely fallen out of favor. The problems with alopecia, dysesthesia, and scars are well-documented. In addition, coronal techniques elevate the hairline, a result that is contraindicated for many patients.

Because of these problems, endoscope technology was a well-received alternative to coronal techniques. But the endoscopic brow and forehead lifting technique is not without its problems. It requires significant investment in equipment, it has a steep learning curve, and, like the coronal techniques, it raises the hairline.

In the past year, the thread-lift method has emerged as another alternative. This minimally invasive procedure can raise the brows and appears to be promising for selected patients who do not need to rejuvenate their entire brow-forehead complex.

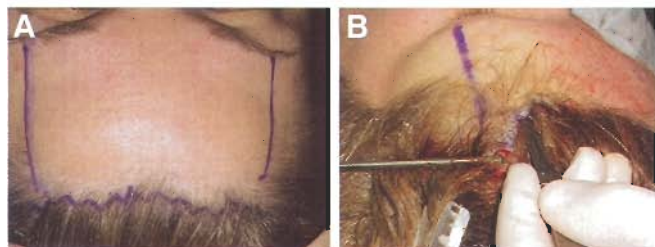


Figure 1: A. The undulating incision is marked at the change of follicular density several millimeters posterior to the hairline. Vertical lines are made at the desired area of maximum elevation. B. An extreme reverse bevel incision is made in the subcutaneous plane.

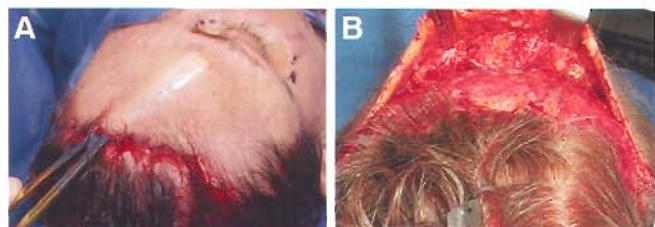


Figure 2: A. The subcutaneous dissection is facilitated with facelift scissors. B. The lipocutaneous flap is elevated, revealing the underlying frontalis muscle.

based on the usual criteria: degree of aging, combination with other procedures, available recovery time, and finances.

For patients who already have high hairlines or balk at calvarial fixation techniques, the trichophytic option has been well-received. Although I frequently resurface endoscopic brow and facelift flaps, I have not yet performed simultaneous carbon dioxide laser resurfacing on the thin lipocutaneous flap of the trichophytic open mini brow lift, but I believe that this procedure can be performed at low fluence.

The Trichophytic Procedure

The crux of this technique is a subcutaneous dissection using an extreme reverse bevel on both flaps and an incision made several millimeters behind the hairline. By incorporating the extreme bevel, the hair follicles can regrow through the scar, making it virtually imperceptible after several months.

Although this technique can be performed with local anesthesia, I usually use intravenous sedation because I frequently combine the brow lift with other head and neck procedures.

The patient is prepped and draped in the usual manner for aesthetic facial procedures. Standard tumescent anesthetic solution is infiltrated over the entire forehead from several centimeters above the hairline to the orbital rims. In addition, 2% lidocaine with 1 part per 100,000 epinephrine is injected at the proposed incision line.

Examination of the hairline shows a secondary line, where the denser hairs begin to feather out to a lower density. This is usually 3–4 mm posterior to the most inferior hairs and corresponds to the desirable incision site (Figure 1A). Because this technique is subcutaneous, there is no need to dissect inferior to the orbital rims or to the lateral orbital rims.

When I am asked how far to dissect in this technique, my answer is “until the brows are adequately elevated.” This can be observed directly, and it usually does not require extensive inferior or lateral dissection. The lateral extent of the dissection is just past

the junction of the middle and lateral one third of the brow—in other words, just past the area of desired maximum elevation. Similarly, the inferior dissection is continued to the orbital rim but is stopped when enough subcutaneous dissection is achieved to adequately elevate the brow.

After an appropriate delay for the vasoconstrictors to take effect, the incision is made. A number 11 blade is used to make an extreme reverse bevel undulating incision in the subcutaneous plane (Figure 1B). With an extreme reverse bevel, the scalpel is held at a 5–10° angle above horizontal.

My experience has shown me that making smaller undulations produces a superior scar, as opposed to using larger “saw teeth.” After the incision, a small spatulate liposuction cannula is used (without a suction source) to pretunnel the subcutaneous flap. This greatly facilitates the dissection of this sometimes delicate flap. After pretunneling, a facelift scissors—or sometimes an index finger—is used to continue the dissection to the described limits (Figure 2).

Rethink the Resection

When the dissection has reached the point where the brows are adequately released, the brow depressors can be disrupted. For surgeons who are accustomed to performing corrugator resection from a subperiosteal view, some rethinking is necessary. With the subcutaneous dissection, the depressors are being viewed from above instead of from below. Care is used to avoid sensory nerve damage. Figure 3 shows the corrugator supercili muscles incised with a microneedle.



Figure 3: The brow depressors are incised and disrupted under direct view.

When the release is deemed appropriate, the assistant elevates the scalp forward from the vertex (to prevent the incision from gaping), the amount of excess skin is determined, and cutbacks are made. In general, 15–20 mm of skin is excised at the peak area of brow elevation. Less skin is cut back in the midline, which provides desirable glabellar and nasal-bridge elevation and narrowing.

It is imperative not to over-resect skin in the midline. After the

cutbacks are made, the flap is anchored with three sutures or staples to bear and evenly distribute the tension (Figure 4A). Using the same extreme reverse bevel incision, the distal flap is trimmed to match the proximal reverse bevel. Although it may seem difficult to line up the undulations to match each other, it is actually quite simple, and they fall into place with little effort. Figure 4B shows the distal flap being trimmed.

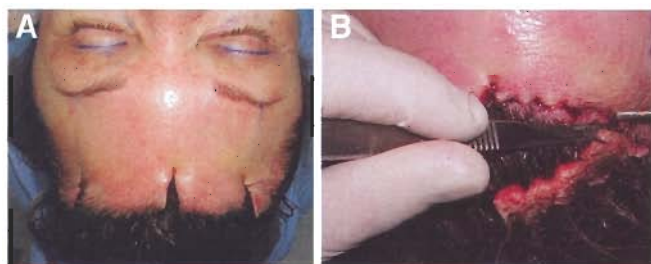


Figure 4: A. Three sutures anchor the flap to evenly distribute the tension. B. Distal skin is excised after an extreme reverse bevel incision is made in the flap.



Figure 5: The final closure consists of staples, subcutaneous 4-0 polyglactin sutures, and a running 6-0 nylon suture.

After the excess skin is trimmed, subcutaneous 4-0 interrupted polyglactin sutures are placed, followed by a running 6-0 nylon suture (Figure 5). The sutures and staples are left in place for 10 days. The hair is washed with sterile

PHOTOS COURTESY OF JOSEPH NIAMTU, III, DMD

saline solution and hydrogen peroxide, and a light pressure dressing is placed on the procedure site. The patient is seen 24 hours later for inspection of the flap for hematoma formation and again 10 days later to remove the sutures and staples.

The incision scar is apparent for several weeks, but it is usually easily hidden by combing the hair forward. During the next several months, the scar becomes well-hidden and is barely visible. **PS!**

Joseph Niamtu, III, DMD, is a board-certified oral and maxillofacial surgeon in private practice in Richmond, Va. He can be reached at niamtu@niamtu.com.

Recommended Reading

- Apfelberg DM, Jacobs D. Coapt Systems Endotine technology for brow lift. *Plast Reconstr Surg.* 2005;116:336-367.
- Biggs TM. Endoscopic brow lift: A retrospective review of 628 consecutive cases over 5 years. *Plast Reconstr Surg.* 2004;113:2219. Author reply. 2219-2220.
- Cuzalina LA, Holmes J. A simple and reliable landmark for identification of the supraorbital nerve in surgery of the forehead: An in vivo anatomical study. *J Oral Maxillofac Surg.* 2005;63:25-27.
- Holcomb JD, McCollough EG. Trichophytic incisional approaches to upper facial

- rejuvenation. *Arch Facial Plast Surg.* 2001;3:48-53.
- Mutaf, M. Mesh lift: A new procedure for long-lasting results in brow lift surgery. *Plast Reconstr Surg.* 2005;116:1490-1499. Discussion, 1500-1501.
- Niamtu J III. Endoscopic brow techniques: An evolving paradigm. *Plastic Surgery Products.* 2000;10(11):64-68.
- Niamtu J III. A simple device for incision retraction and protection in endoscopic-assisted brow and forehead lifting. *Dermatol Surg.* 2001;27:779-780.
- Niamtu J III. Endoscopic brow and forehead fixation: All that and more. *Plast Reconstr Surg.* 2005;115:357-358.
- Puig CM, LaFerriere KA. A retrospective comparison of open and endoscopic brow-lifts. *Arch Facial Plast Surg.* 2002;4:221-225.
- Tower RN, Dailey RA. Endoscopic pretrichial brow lift: Surgical indications, technique and outcomes. *Ophthal Plast Reconstr Surg.* 2004;20:268-273.
- Troilius C. Subperiosteal brow lifts without fixation. *Plast Reconstr Surg.* 2004;114:1595-1603. Discussion. 1604-1605.
- Watson S, Niamtu J III, Cunningham, LL Jr. The endoscopic brow and midface lift. *Atlas Oral Maxillofac Surg Clin North Am.* 2003;11:145-155.



SAVE UP TO 60%

On Refurbished Medical Equipment

Discount Pricing on *New* and *Refurbished* Equipment




- Anesthesia
- Autoclaves
- BP Monitors
- CO2 Monitors
- Defibrillators
- ECG Monitors
- EKG Machines
- Electrosurgery
- Endoscopy
- Exam Chairs
- Exam Lights
- Instruments
- **Repair Parts**
- Stainless Steel
- Surgical Lights
- Surgical Tables
- Pulse Oximeters
- **Rentals and More!**

We Offer Free Loaners If Needed During Repairs

Quality New and Refurbished Equipment Since 1983

We Service Most Makes and Models!

ACE 
Medical Equipment Inc.
Sales and Service

13214 38th Street N • Clearwater, FL 33762
Phone: 800-223-6606 • Fax: 727-572-0208

Visit our website at: www.AceMedical.com
E-Mail to: Sales@AceMedical.com