Minimal incision rhytidectomy has the primary advantages of preserving the posterior hairline and avoiding retroauricular scars. This short-scar face lift with lateral SMASectomy and platysma resection, performed by the author on more than 500 patients in the past 3 years, provides the versatility of traditional SMAS flap undermining and the safety and rapidity of SMAS plication.

The operative technique described in this article represents the culmination of more than 20 years of performing rhytidectomies. Few operations can be entirely novel, inasmuch as one always borrows from the past and the present to synthesize an individual technique. I am grateful to my teachers and to such pioneers in the field as Drs. John Conley, Thomas Rees, John Converse, Ralph Millard, and Bruce Connell.

A significant breakthrough in the evolution of my technique occurred in 1994. After attending a face lift course presented by Dr. Bruce Connell at the American Society for Aesthetic Plastic Surgery meeting in Dallas, I began using a temporal hairline incision. As a resident, I had been taught that this incision was taboo because the scarring was terrible. In fact, I had never done a temporal hairline incision or seen one done. Dr. Connell’s results impressed me and offered a solution to the problem of preserving the temporal hairline.

The rationale for any minimal incision surgery is evident: less invasiveness, less bleeding, presumably less pain, faster healing, and less scarring. The primary advantages of minimal incision rhytidectomy, however, are that it preserves the posterior hairline and avoids retroauricular scars, which are particularly important for a woman with a pulled-up or swept-back hairstyle.

Despite these recognized advantages, during the past 3 years of refining a surgical technique with minimal incisions and expanding its use, I have frequently encountered skepticism on the part of an assisting resident or aesthetic fellow, particularly in cases in which it seemed impossible to achieve a good result without opening the neck and raising a postauricular flap.

One of the tests of any technique is whether its results are reproducible in the hands of other surgeons. I was pleased when a number of the aesthetic fellows reported to me that they had used my method and achieved good results. My fellow attending surgeons began to stop in the operating room to observe; this was a great compliment and encouraged me to present this technique more widely.

**Anesthesia**

Virtually all of my face lifts are performed with the patient under monitored intravenous propofol sedation. Patients are given oral clonidine, 0.1 to 0.2 mg, 30 minutes before surgery to control their blood pressure. The face and neck are infiltrated with local anesthesia, 0.5% lidocaine with 1:200,000 epinephrine, through use of a 22-gauge spinal needle. I inject the face before I scrub to provide the requisite 10 minutes for vasoconstriction.

**Incisions**

When the temporal hairline shift is assessed as minimal, the preferred incision is well within the temporal hair. With this incision, it is often necessary to excise a triangle of skin below the temporal sideburn at the level of the superior root of the helix.

However, when a larger skin shift is anticipated (frequently the lift is more vertical with minimal incision rhytidectomy) or the distance between the lateral canthus and temporal hairline is greater than 5 cm, I prefer an incision a few millimeters within the temporal hairline. Although this is a compromise, the alternative of a receding temporal hairline is never acceptable to a female patient. When the incisions are executed properly, these
scars heal well and are easy to revise or camouflage. The only exception might be in a patient with deeply pigmented skin in whom the scar will contrast and appear as a white line. The temporal hairline incision should be made parallel to the hair follicles and no higher than the frontotemporal hairline (Figure 1).

The temporal hairline incision allows for the more vertical elevation of the facial flap that is often required in a type III or type IV patient (see the accompanying article on page 14). Other indications for this incision are a receding hairline from previous face lifts and a fine, fragile hairline.

The choice of preauricular incision is up to the surgeon. When executed properly, all of these incisions heal well and are imperceptible. I usually prefer a curved incision anterior to the helix and continue inferiorly anterior to the tragus in a natural skin fold. This preserves the thin, pale, hairless tragal skin and its demarcation from the usual coarser, thicker, darker cheek skin with its lanugo hairs. I perform intratragal incisions in patients in whom the cheek and tragal skin are similar and the tragal cartilage is not sharp or prominent. Closure must be without tension and the flap overlying the tragus defatted to dermis.

In minimal incision rhytidectomy, efforts are made to end the incision at the base of the earlobe. This is usually possible in a type I or type II patient, but in a type III or type IV patient, a short retroauricular incision is often necessary to correct a dog-ear after the facial flap rotation.

**Skin Flap Elevation**

All skin flap undermining is carried out under direct vision (with scissors dissection) to minimize trauma to the subdermal plexus and preserve a significant layer of subcutaneous fat on the undersurface of the flap. I prefer...
Figure 3. Design of SMAS-platysma resection. The level of resection is superficial to the parotid masseteric fascia that overlies the facial nerve branches.
Minimal Incision Rhytidectomy (Short-scar Face Lift) with Lateral SMASectomy

Subcutaneous dissection in the temporal region because the skin seems to redrape better. (I believe that hair loss results primarily from tension rather than superficial undermining.) Subcutaneous dissection in the temporal region must be performed carefully to avoid penetrating the superficial temporal fascia that protects the frontal branch of the facial nerve. All dermal attachments between the orbicularis oculi muscle and the skin are separated up to the lateral canthus.

Dissection extends across the zygoma to release the zygomatic ligaments but stops several centimeters short of the nasolabial fold. I have never felt that further dissection provides significant benefit; on the contrary, the only result is increased bleeding. In the cheek, dissection releases the masseteric-cutaneous ligaments and, if necessary, the mandibular ligaments.

Subcutaneous dissection continues over the angle of the mandible and sternocleidomastoid for 5 to 6 cm into the neck. This exposes the posterior half of the platysma muscle. If a submental incision has been made, the facial and lateral neck dissection is connected through and through to the submental dissection.

**Defatting the Neck and Jowls**

Whenever possible, I prefer closed suction-assisted lipoplasty in the neck and jowls. I use a 2.4-mm Mercedes tip cannula, keeping it under constant, steady motion in the subcutaneous space (Figure 2). I attempt to leave a layer of subcutaneous fat on the undersurface of the cervical skin. If I suction the jowls, this is always done conservatively. I never suction or remove subplatysmal fat because (1) the facial nerves run just beneath the platysma and (2) any patient with significant subplatysmal fat probably has a fat, round face, so removing subplatysmal fat could create an overoperated look.

I usually perform lipoplasty before elevating the skin.
flaps. In doing so, I am careful not to oversuction the portion of the superficial musculoaponeurotic system (SMAS)—platysma that will be elevated over the mandible with the lateral SMASectomy.

**Open Submental Incision with Medial Platysma Approximation**

After many years, I had almost stopped opening the neck, except in unusual cases, because I found that I could accomplish excellent results with closed lipoplasty and strong lateral platysma pull. With minimal incision rhytidectomy there is limited access to the platysma and the lateral vector has changed. Therefore, in type III and type IV patients with active platysma bands on animation, the medial approximation provided another vector to enhance the cervicomental recontouring.

The submental incision is made either in the submental crease or just anterior to it. The subcutaneous dissection is performed with the neck hyperextended, and undermining is usually to the level of the thyroid cartilage and angle of the mandible. Suction-assisted lipoplasty is then performed with a large, single-hole cannula under direct vision. Direct fat excision is carried out if necessary, but to avoid depressions, no subplatysma fat is removed.

The medial borders of the platysma muscle are identified and elevated for several centimeters. To break the continuity of the bands, a wedge of muscle is removed at the level of the hyoid. The medial borders of the muscle are then sutured together with interrupted buried 4-0 PDS (ETHICON, Inc., Somerville, NJ).

The submental incision is left open to allow for final hemostasis and recontouring after communication with the facial dissection and completion of the lateral SMASectomy.

**Lateral SMASectomy Including Platysma Resection**

The outline of SMASectomy is marked on a tangent from the lateral malar eminence to the angle of the mandible,
Minimal Incision Rhytidectomy (Short-scar Face Lift) with Lateral SMASectomy essentially in the region along the anterior edge of the parotid gland (Figure 3). In most patients, this involves a line of resection extending from the lateral aspect of the malar eminence toward the tail of the parotid gland. Usually, a 2 to 4-cm segment of superficial fascia is excised, depending on the degree of SMAS-platysma laxity.

In SMAS resection, I like to pick up the superficial fascia in the region of the tail of the parotid, extending the resection from inferior to superior in a controlled fashion. When SMAS resection is being performed, it is important to keep the dissection superficial to the deep fascia and avoid dissection into the parotid parenchyma. Note that the size of the parotid gland varies from patient to patient; consequently, the amount of protection for the underlying facial nerve branches will also vary. Despite this, as long as one carries the dissection superficial to the deep facial fascia, ensuring that only the superficial fascia is resected, facial nerve injury as well as parotid gland injury will be prevented. In essence, this is a resection of the superficial fascia in the same plane of dissection in which one would normally raise an SMAS flap.

Continuous with the lateral SMASectomy is the resection of a strip of posterior platysma muscle several centimeters long over the tail of the parotid and anterior border of the sternocleidomastoid. The facial nerves are protected here.

**Vectors**

The various vectors accomplish correction of the anterior neck, the cervicomental angle, the jowls, and the naso-
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Figure 7. Intraoperative and immediate postoperative views of a 64-year-old woman who underwent lateral SMASectomy via minimal incision rhytidectomy with anterior hairline incision. A, SMAS-platysma resection and temporal hairline incision are outlined. B, Area of SMAS resection; resected SMAS is in forceps. C, SMAS reapproximation. D, Forceps pull in the direction of the key skin vector as excess skin is excised. E, Fitting the skin flap to the ear lobe and removing the dog-ear from the retroauricular sulcus. F, Final closure with a suction drain in the neck.
Operative Strategies

Figure 7 (continued). G, Postoperative appearance at the conclusion of surgery before dermabrasion. H, After dermabrasion. I, Frontal view at 1 week. J, Lateral view at 1 week. K, Retroauricular view at 2 weeks. Bunching around the earlobe will smooth with the passage of time. Retroauricular crease and occipital hairline are undisturbed. L, Preauricular and temporal hairline incision at 2 weeks.
Figure 8. A and C, Preoperative views of a 44-year-old woman. B and D, Postoperative views 21⁄2 years after minimal incision rhytidectomy with SMASectomy, upper blepharoplasty, and chin implant for a type II patient. E and F, Note the absence of retroauricular and occipital incisions.
Minimal Incision Rhytidectomy (Short-scar Face Lift) with Lateral SMASectomy

Operative Strategies

Figure 9. A, C, and E, Preoperative views of 68-year-old woman. B, D, and F, Postoperative views 5 months after minimal rhytidectomy, small extended chin implant, and 35% trichloroacetic total facial peel as well as perioral and glabellar dermabrasion at the time of surgery. The patient was a heavy smoker, so the submental area was not opened.
labial fold. The first key suture grasps the platysma at the angle of the mandible and advances it in a posterosuperior direction; it is secured with 2-0 Maxon (United States Surgical Corp., Norwalk, CT) to the fixed lateral SMAS overlying the parotid (Figures 4 and 5). This lifts the cervical platysma and cervical skin.

After SMAS resection, interrupted 3-0 PDS buried sutures are used to close the SMASectomy, fixed lateral SMAS being evenly sutured to more mobile anterior superficial fascia (Figure 6). Vectors are perpendicular to the nasolabial fold. The last suture lifts the malar fat pad, securing it to the malar fascia. It is important to obtain a secure fixation to prevent postoperative dehiscence and relapse of facial contour.

If firm monofilament sutures are used, such as PDS or Maxon, the sutures should be buried and sharp ends on the knot trimmed. Final contouring of any SMAS or fat irregularities along the suture line is completed with scissors. Fat can also be trimmed at the sternomandibular trough, final contouring being accomplished with lipoplasty.

**Skin Closure, Temporal and Earlobe Dog-ears**

After SMAS and platysma approximation, some tethering of the skin might appear at the anterior extent of the subcutaneous dissection because of the pull of the underlying SMAS. This can also occur in the lower eyelid with elevation of the malar fat pad. Further subcutaneous undermining is necessary to free these tethers, allowing the skin to redrape.

The first key skin suture rotates the facial flap vertically and posteriorly to lift the midface, jowls, and submandibular skin. Suture fixation is at the level of the insertion of the superior helix. I like to use a buried 3-0 PDS through the temporal fascia with a generous bite of dermis on the skin flap. Closure is under minimal to moderate tension. Staples are used to close any incisions in the hair. A wedge is usually removed at the level of the sideburn to preserve the hairline. If an anterior hairline incision has been made, I like to close it with buried 5-0 Monocryl sutures (ETHICON, Inc.) and 5-0 nylon sutures. Extra time and attention must be spent on this closure to eliminate any dog-ears and obtain the finest scar.

Excess skin is then trimmed from the facial flap so that there is no tension on the preauricular closure. Wound edges should be kissing without sutures. Trimming at the earlobe must also be without tension, and the skin flap is tucked under the lobe with 4-0 PDS sutures, taking a bite of earlobe dermis, cheek flap dermis, and conchal perichondrium to minimize any tension. A small dog-ear might be present behind the earlobe; this is easily trimmed and tailored into a short incision in the retroauricular sulcus. A closed suction drain is usually brought out through a separate stab in the retroauricular sulcus.

Figure 7 presents an intraoperative and immediate postoperative photographic sequence of a patient who underwent lateral SMASectomy via minimal incision rhytidectomy with anterior hairline incision. Ancillary procedures included upper lid blepharoplasty, rasp nasal dorsum, insertion extended chin implant, perioral and glabella dermabrasion, and lower-lid laser resurfacing. Figures 8 and 9 show postoperative results in 2 patients.

**Advantages of Lateral SMASectomy**

There are several advantages of lateral SMASectomy in comparison with traditional SMAS elevation. First, because the procedure does not require traditional SMAS flap elevation, there is less concern about tearing of the superficial fascia. Second, the potential for facial nerve injury is less because most of the deep dissection is over the parotid gland. If the SMASectomy is performed anterior to the parotid, the deep fascia will similarly provide protection for the facial nerve branches as long as the resection of the superficial fascia is done precisely and the deep facial fascia is not violated. Third, because SMAS flaps have not been elevated, they tend to hold suture fixation more strongly, and the potential for postoperative dehiscence and relapse of contour is decreased.

Lateral SMASectomy offers similar advantages in comparison with simple SMAS plication. Because of the design of the lateral SMASectomy along the anterior border of the parotid, the SMASectomy is performed at the interface of the superficial fascia fixed by the retaining ligaments and the more mobile anterior superficial facial fascia. On closure, this brings the mobile SMAS up to the junction of the fixed SMAS, producing a durable elevation of both superficial fascia and facial fat. Plication pulls on unreleased facial fascia (still bound by the retaining ligaments) so that proper vectors of elevation and long-lasting fixation may be problematic.

**Conclusion**

In the past 3 years I have used a minimal incision rhytidectomy with lateral SMASectomy and platysma
Minimal Incision Rhytidectomy (Short-scar Face Lift) with Lateral SMASectomy

resection in more than 500 patients. The technique requires a more vertical elevation of the facial flap that lifts the neck adequately in properly selected patients.

With this technique, I am confident of obtaining consistently good results with minimal risk, complications, and morbidity as well as with a speedy postoperative recovery. It is a rapid, safe, and reproducible operation, providing the versatility of traditional SMAS flap undermining and the safety and rapidity of SMAS plication. However, I do not apply this technique in every patient, and there is still the occasional patient (usually with a very thinned face) who gets an excellent result only with a skin undermining and redraping. There are other patients with severe cervicofacial laxity and loss of elasticity who benefit more from classic rhytidectomy operations with retroauricular scars.

There certainly are a variety of rhytidectomy techniques that produce excellent results. Each surgeon must adopt a technique that serves patients well and is, ideally, safe, consistent, easily reproducible, and applicable to a variety of anatomical problems. In addition, the surgeon must have the versatility to individualize the technique according to the needs and desires of each patient.

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In this issue, *Aesthetic Surgery Journal* presents 2 complementary articles by Dr. Daniel C. Baker about minimal incision rhytidectomy with lateral SMASectomy. These articles, one appearing in “Operative Strategies” and the other in the journal’s Scientific Forum, should be considered together for a full understanding of the method.

All patients want the same things: (1) minimal scarring, surgical trauma, and recovery time and (2) maximal results. Experienced surgeons know, however, that maximal results usually require more extensive surgery. Dr. Baker’s innovative work on the short scar face lift is a successful effort at satisfying the desires of our patients without compromising results.

Limited incisions are not new, but adding extensive undermining of the superficial tissues plus vertical elevation of the deep tissues to the short scar technique is an original contribution, obviating many of the restrictions of the limited incisions.

- Experience in performing full-scale face lifts with preauricular and postauricular incisions is an important prerequisite to facility with the short scar face lift. The more extensive soft tissue elevation obtained through the combined periauricular and occipital incisions provides optimal visualization of the pertinent anatomical areas and broad latitude in manipulating the lateral and vertical vectors of skin elevation. The in vivo knowledge of anatomy and vector manipulation achieved by working with full exposure is an invaluable aid in safely obtaining good results when exposure is limited.

- Except in patients with very minimal deformities, the SMAS-platysma layer must also be lifted for a satisfactory result. The lift of the deeper tissues should have a strong vertical component for maximal rejuvenative effect. Dr. Baker prefers the lateral SMASectomy approach, but a SMAS-platysma elevation, or deep plane lift, will also work. The exact nature of the deep tissue manipulation depends on the preferences and experience of the surgeon; suffice it to say, however, that some vertical elevation of the deeper tissues is mandatory for optimal results in most patients.

- The technique can be made to work for the more difficult neck by combining procedures performed through the lateral dissection approach with ancillary procedures in the anterior neck performed through a submental incision. Ancillary procedures may include any or all of the following: fat removal by means of liposuction, fat removal through use of an open approach, and plication of the anterior platysma.

- Use of a pretrichial temporal incision to prevent temporal hairline elevation is an important adjunctive step for many patients. A short horizontal backcut through the temporal hair at the level of the attachment of the helical rim is never noticed by the patient. Extension of this backcut in a cephalic direction along the temporal hairline is possible with very inconspicuous scarring as long as the direction of hair growth is inferior and the surgeon is meticulous in his closure.

- For removal of extra skin without noticeable bulges or scarring, patients with extensive vertical lifting will need careful skin tailoring along the temporal hairline.

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**Commentary**

by Gerald H. Pitman, MD

Editor, Operative Strategies

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