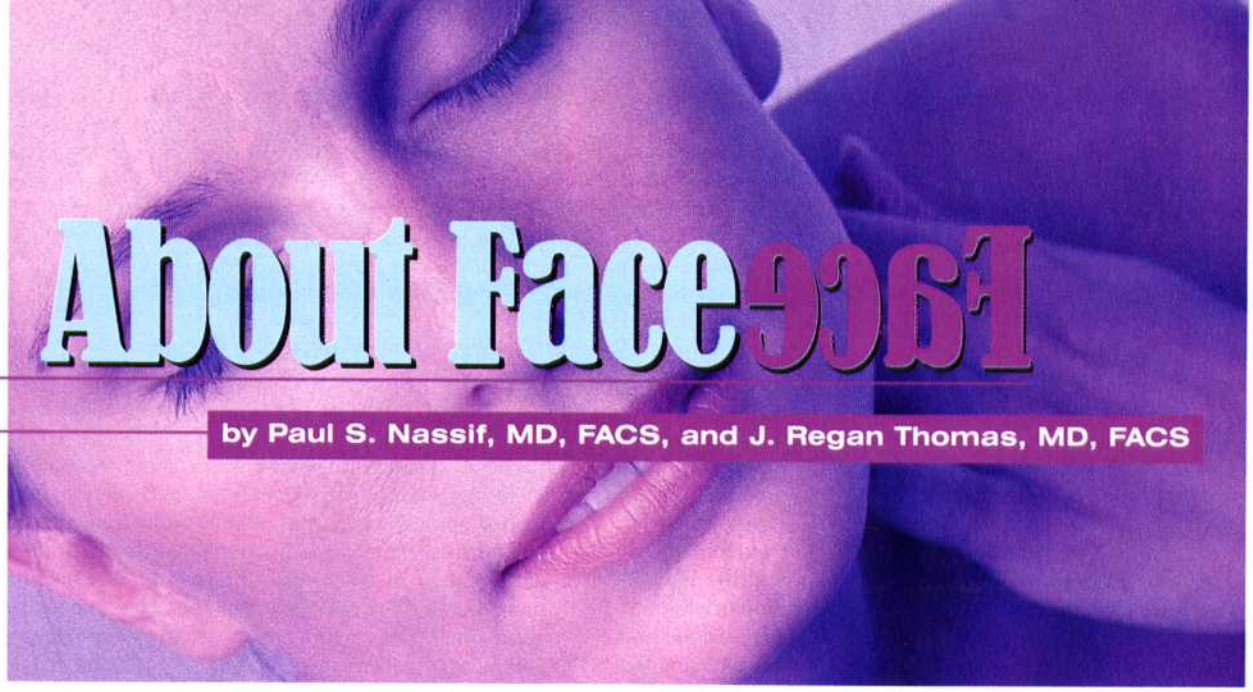

About Face

by Paul S. Nassif, MD, FACS, and J. Regan Thomas, MD, FACS

A modified form of the SMAS lift provides a conservative rhytidectomy approach

A balanced approach to rhytidectomy is paramount in order to achieve optimal results with minimal to no complications. For more than 20 years, coauthor Thomas has performed various facelift techniques, such as the skin, submuscular aponeurotic system (SMAS), and deep plane lifts. He eventually found that a modified SMAS lift effectively repositions ptotic jowl and cervical soft tissue with an excellent safety profile. Thomas named the procedure the "Safety Facelift."[1] We believe this technique is based on sound surgical principles and years of experience. Long-term follow-up with our patients has given us the insight to constantly improve this conservative, yet effective technique.

Expected Outcomes

The goals of this operation include:

1. To create a superior and lateral vector for repositioning ptotic jowls and cervical soft tissue by either imbrication (edge-to-edge fixation) or plication (overlapping of tissue) of the SMAS flap. Ptotic midfacial tissues are addressed through an endoscopic midface subperiosteal technique, which will not be discussed in this article.
2. To create a natural, nonoperated appearance with minimally visible scars. As more younger patients seek rhytidectomy, surgeons have the opportunity to help create a smooth transition into aging. Facial changes are more apparent when operating on elderly patients with severe ptotic jowls; however, a natural appearance without the ptotic excess tissue can be achieved. It is important to suture without applying tension on skin flaps to ensure unnoticeable results.
3. To create stable, long-lasting results by use of the proper technique and patient selection. Since the patient population for this procedure is becoming younger, this begs the question: Will the facelift last longer on younger patients since, in general, the elasticity of their skin is better than that of the typical older patient in their early to mid fifties?
4. To avoid complications by not implementing aggressive surgical techniques. For example, elevate a medium flap rather than a long flap, and use smaller dissections to lessen the risk of hematomas, facial nerve injury, or delays in flap healing. Adapting aseptic surgical techniques also helps prevent complications.
5. To promote rapid healing by performing conservative flap elevation with the possible use of autologous platelet-rich plasma or fibrin glue.

Avoiding Unnatural Results

The wind-tunnel, pulled, or lateral sweep facial appearance. This is generally caused by a lateral pull on the deep tissues and excessive tension on the skin flaps. To aid in the prevention of this unsightly common facial appearance following a bad facelift, cephalic or superior repositioning of the SMAS when plicating or imbricating is necessary, in addition to avoiding tension on the skin flaps when suturing. In patients with midface ptosis, addressing the lower third of the face without addressing the midface can also create a lateral sweep look. In this situation, a midface or composite lift[2] is needed.

Hollow midcheek appearance. To prevent this, cephalic or superior repositioning of the ptotic jowls or tissue at the inferior border of the mandible by plication efface the depression in the submalar region. The initial SMAS plication suture should reposition the tissue from the lower mandible to just inferior to the zygomatic arch. Plication will add bulk to the soft tissues.

Pixie ear deformity (inferomedial tethered earlobe with loss of natural lobe appearance). This is generally caused by excess skin tension on the earlobe when tailoring skin flaps at the lobular-facial junction. Recreating the precise preoperative anatomic site of this junction is crucial. The earlobe should rest in a hammock of preauricular and postauricular skin without any tension. Initially, fixate the hammock at the junction of the mastoid postauricular hairless skin and the auriculomastoid sulcus, and second, just superior to the helix of the ear in the temple region. If the hammock created for the earlobe is not released or cramped, the earlobe will fold over and form creases. Some earlobes are preoperatively attached at the lobular-facial junction and are at increased risk for this deformity. Surgeons must preoperatively evaluate the type of earlobe and discuss surgical options with the patient, such as reducing the size if indicated or creating an unattached earlobe from an attached one.

Cobra deformity. Submental hollowness or depression caused by overaggressive removal of subplatysmal fat or aggressive submental liposuction with prominent medial platysmal banding may create a cobra look. Conservative submental liposculpting or lipectomy can prevent this abnormality.

Occipital hairline step-off. Insufficient superomedial rotation when advancing the cervical flap posteriorly will cause a step-off. Once again, the correct amount of cephalic rotation and posterior or lateral advancement will prevent this. After performing SMAS imbrication or plication, recreate the occipital hairline with the initial skin fixation suture or staple.

Temple hairline distortion. If your technique involves a temple incision superior to the helix, overaggressive superior and/or lateral pull will elevate or distort the temporal hairline. Conservative superior advancement and lateral rotation will create a smooth, nondistorted temple hairline.

Visible preauricular scar. This is usually created by undue tension on the preauricular skin closure and incisions anterior to the preauricular crease. To prevent this complication, avoid tension on the skin edges when suturing. The skin edges should kiss. The preauricular incision should follow in the preauricular crease and be retrotragal in the region of the tragus. Meticulous suture placement and removal in 5 to 7 days will help prevent visible scarring.

Visible postauricular scar. Scars that are visible lateral to the postauricular sulcus are caused by making the postauricular incision in the sulcus. Incising on the conchal surface will usually prevent this. When closing the postauricular flap, the incision made high on the concha will usually fall into the postauricular sulcus and not lateral to it. Additionally, visible scars when crossing the auricular helix to the postauricular hairline are caused by making the incision inferiorly or having tension on the wound. Generally, placing the incision where the posterior hairline intersects with the margin of the helical rim (hiding the scar and avoiding tension on the closure) will prevent this.

Bowstring auriculomastoid sulcus scar. From our basic surgical training, we have learned that an incision traversing a convex (conchal surface) to a concave surface (auriculomastoid sulcus) will cause a hypertrophic scar in most situations. Irregularizing or performing a Z-plasty in this area will help decrease the incidence of a bowstring scar.

Loss of tragal definition. This calamity is caused by not defatting the tragal flap. Proper defatting of the flap and not having skin tension on the closure will prevent this. Approximately 4 to 6 months is needed for the tragus to form definition. Placement of a dermal suture of the SMAS to the dermis of the skin flap at the pretragal crease may accelerate the formation of tragal definition.

Outlining the Surgical Procedure

Patients undergoing the safety facelift should be healthy, have realistic expectations, and have the proper anatomical and physiological features.

1. While the patient is in the upright position, mark the planned incisions, the sternocleidomastoid and platysmal muscles medial borders, zygomatic arch, hyoid-thyroid complex, submental dissection, areas of submental lipodystrophy, jowls, and location of facial nerve braches (frontal and marginal mandibular). The occipital and temporal hairline incisions are approximately 5 cm to 7 cm and 2 cm to 3 cm, respectively. Following inducement of anesthesia with the patient in a supine position, delineate the extent of the flap dissection. The temporal dissection is generally within the hairline to prevent trauma to the frontal branches of the facial nerve. The preauricular dissection starts at the inferior border of the zygomatic arch and then gradually becomes a medium flap of 5 cm to 6 cm in the infra- and postauricular regions culminating at the lateral end of the occipital incision.
2. The submental and right facial incisions are infiltrated with 1% lidocaine with 1:100,000 epinephrine using 10 cc to 15 cc in each area. The left side is infiltrated after time has

Preoperative: frontal.

Preoperative: oblique.

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Six month postoperative views of a 69-year-old woman who underwent the safety facelift, endoscopic subperiosteal midfacelift, endoscopic browlift, upper blepharoplasty, and lower blepharoplasty with fat repositioning. Notice the improvement of the jowl and neck line.

passed to allow for the initial injection to reabsorb. Allow 10 to 15 minutes to lapse for maximum vasoconstriction.

3. If needed, conservative submental liposuction using a 2.5-mm spatula cannula is performed. If extensive liposculpturing is needed, a 4.0-mm spatula cannula may be used initially. The cannular dissection is initially performed without suction followed by conservative liposuction. Open submental lipectomy may be performed if the operating surgeon deems necessary. If jowl liposuction is performed, do not cantilever off the mandible, since injury to the marginal mandibular branch of the facial nerve is likely. Candidates for jowl liposuction generally have a moderate to extensive amount of jowl lipodystrophy and rounded facial features without midcheek hollowness. Patients with midcheek hollowness benefit from having the jowl soft tissue repositioned into this region and, therefore, should only have conservative jowl liposuction.
4. If the candidate has moderate to significant medial platysmal banding, platysmalplasty is performed. The predetermined submental dissection is performed in the subcutaneous plane. The medial edges of the platysma are identified and limited subplatysmal dissection is performed under complete visualization. A 1-cm to 2-cm back-cut is made into the platysmal at the level of the hyoid with care to maintain absolute hemostasis. A thin strip of the medial border of each platysma is excised to allow for the wound edges to scar together when imbrication is performed. Platysmal imbrication is performed with 3-0 polydioxanone starting at the inferior extent of the dissection. The sutures are buried. The most superior platysmal suture additionally passes through the periosteum of the midline undersurface of the mandible, helping to create an acute cervicomental angle.

> Skin tailoring may be time-consuming, but it is the most important part of the procedure. Every skin incision or cut and every suture placed must be absolutely perfect.

5. The hairline incisions are made parallel to the hair follicles, thus preserving the follicle to allow ingrowth of hair into the scar. To avoid trauma to the superficial temporal vessels and auriculotemporal nerve in the temple region, a tonsil clamp is used to open the incision and elevate the flap. This maneuver can be used for the occipital hairline incision. The facelift flap dissection, including the temple dissection, is performed in the subcutaneous plane. Keep a thin layer of fat on the flap undersurface to protect the subdermal plexus. Avoid cauterization in the hairline region since the thermal energy will damage hair follicles and increase the risk of alopecia. If needed, local anesthesia may be infiltrated into the edges of the hairline incisions causing compression of the oozing blood vessels. If cautery is used for hemostasis, use bipolar cautery. The retroauricular flap is elevated just superficial to the fascia overlying the sternocleidomastoid muscle. Blunt dissection with liposuction cannulas may be used to facilitate cheek flap elevation prior to sharp dissection. If significant jowls are present and liposculpture is needed, the jowls may be suctioned via the cheek flap with care to stay at least 2 cm from the lateral commissure of the lip. This prevents neuropraxia of the terminal branches of the marginal mandibular branch of the facial nerve, since the nerves innervating the undersurface of the orbicularis oris are superficial.
6. If the submalar or midcheek region is hollow, plication of the SMAS will assist in filling in the depression. If the midface is full and/or has less than ideal tissue mobility, SMAS imbrication is performed. Starting at the inferior border of the zygomatic arch approximately 1 cm medial to the edge of the preauricular incision, a horizontal SMAS incision parallels the inferior border of the zygomatic arch for approximately 3 cm. For the vertical SMAS incision, start at the same place as the horizontal incision and extend caudally to the inferior aspect of the dissection approximately 4 cm to 5 cm below the earlobe. A surgical marker is used to mark the proposed incision sites followed by the injection of local anesthesia. Following the incision, limited SMAS undermining is performed. The remainder of the procedure remains the same for plication or imbrication, except that in imbrication, excess SMAS is resected. The SMAS just superior to the jowl region is grasped and repositioned vertically and slightly posteriorly. The second key suture is placed at the lateral border of the platysma and advanced superolaterally over the dense fascia of the sternocleidomastoid. Plication or imbrication is performed using 3-0 polydioxanone. The SMAS-platysmal layer is repositioned under considerable tension. Approximately five to six sutures are then placed between these two key fixation points. All sutures are buried and interrupted. The undermined subcutaneous tissue space is reduced significantly, diminishing the risk of hematoma.
7. Skin tailoring may be time-consuming, but it is the most important part of the procedure. Every skin incision or cut and every suture placed must be absolutely perfect. The right amount of both lateral advancement and cephalic rotation of the skin flaps is necessary to achieve the desired results and prevent facial distortion. Two key positions are used for the foundation of tailoring the skin flaps. The first position recreates the occipital hairline. To aid in the recreation of the hairline, preoperatively mark the occipital hairline superiorly and inferiorly to the occipital incision. The second position is just superior to the helix in the temple region. The next two important fixation points are the auriculomastoid sulcus followed by recreation of the earlobe. The contralateral face is injected with local anesthesia. The retrotragal flap is tailored and defatted. The remainder of the skin flaps is tailored and closed leaving the retrotragal and postauricular incisions open to allow for placement of fibrin glue or platelet-rich plasma at the termination of the procedure.
8. Depending on the surgeon, a small amount of fibrin glue or platelet-rich plasma may be placed in the anterior flap via the retrotragal opening and then in the posterior flap via the postauricular incision. The remainder of the incisions are closed, and a light facelift dressing is applied. ■

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