Editor’s Note: My thanks to the moderator, Gordon H. Sasaki, MD (board-certified plastic surgeon and ASAPS member, Pasadena, CA); and to panelists Thomas A. B. Bell, MD (board-certified plastic surgeon and ASAPS member, ON, Canada); Nicanor G. Isse, MD (board-certified plastic surgeon and ASAPS member, Newport Beach, CA); and Gregory L. Ruff, MD (board-certified plastic surgeon, Chapel Hill, NC), for sharing their opinions and clinical experience.

Dr. Sasaki: I am pleased to moderate this panel about surgical facial rejuvenation in younger patients. We will focus solely on surgical procedures, ignoring treatments such as radiofrequency, laser, chemical peels, soft tissue fillers, and Botox.

Aesthetic plastic surgeons are seeing an increased number of younger patients for surgical facial rejuvenation. This trend is related to greater personal and societal acceptance of aesthetic surgical procedures and to more acceptable and available surgical options for the younger patient. Another factor has been the increase in discretionary income to meet such goals.

Younger patients present unique demands, including the request for procedures that produce less visible scars and have a quicker recovery time. They may also expect the less invasive procedures to yield the same long-lasting effects that are observed after more extended procedures. These patients are also concerned about the impact of surgeries performed when they are young on their aging and on future surgical procedures.

The first patient is a 31-year-old woman who has concerns about her angry appearance, lower lid puffiness, midface irregularities, and weak chin (Figure 1). She has had no prior surgical procedures, Botox, or soft tissue fillers. Dr. Isse, how would you evaluate and treat this patient?

Dr. Isse: In general, the patient has symmetrical facial structures. The “angry” appearance results from a low-medial brow position in relation to the central and lateral brow.

This condition is due to overactive glabella muscles (medial portion of orbicularis oculi muscle, depressor supercilii, and procerus). My treatment of choice would be myotomies of the glabella muscles using an endoscopic approach, subperiosteal dissection up to the glabella area, and supraperiosteal dissection on the glabella to expose the glabella muscles, using 2 small incisions behind the central hairline. Evaluation of the inferior periorbital/lower eyelid shows elongation of the lower eyelid with minimal fat extrusion of the medial compartment. The midface irregularity is produced by an incipient nasojugal crease tear trough deformity crossing the uppermost portion of the malar area, and minimal to moderate fullness of the submalar area. If the patient does not have concerns about elongation of the infraorbital area, I would propose a microfat injection of the medial eyelid, tear trough, and malar area. If she wants to improve the lower eyelid elongation, I would offer a trans-temporal endoscopic periorbital lower lid shortening. If she desires to improve the fullness of the submalar area, a fat transposition from submalar to malar area can be achieved by imbricating the fibrous adipose tissue with barbed polypropylene sutures through a temporal approach. The mild to moderate micrognathia can be surgically corrected with a silastic chin implant, using either an intraoral or a submental approach. With this patient, I prefer an intraoral approach with suprape-
Dr. Isse: Sequential microfat injection is an option if she opposes chin surgery.

Dr. Sasaki: Dr. Isse, what are your thoughts about the advantages of an upper lid (transpalpebral) approach to soften the angry look compared with your endoscopic forehead procedure?

Dr. Isse: I prefer the endoscopic to the transpalpebral approach because a magnified view allows me to identify each glabella muscle and treat it appropriately. Also, if no eyelid incision is made, the possibility of a hypertrophic or white scar on the upper eyelid is eliminated.

Dr. Sasaki: When you alter the function of the interbrow muscles to improve the angry look, how do you prevent a “quizzical” look or widened interbrow distance?

Dr. Isse: In the angry facial expression the medial brow is not only drawn lower, but it is also drawn medially. The interbrow distance is reduced by adduction of the muscles (closer together). The interbrow distance is considered aesthetically pleasant when the most medial edge of the brow falls between the lateral nasal bone and the medial canthal ligament. As the glabella muscles contract, they bring the brow lower and medially. By transecting them, we reverse these actions. By keeping the corrugator muscle intact, since it is the major adductor of the brow, a severe widening of the interbrow distance can be prevented. By not releasing the periosteum on the glabellar area vertically, an extreme brow separation can be avoided.

Dr. Sasaki: Would you use any fixation methods in this younger patient?

Dr. Isse: In this patient, I would not do any fixation. Since the angry look is a dynamic phenomenon, releasing the glabella depressor would be enough to produce the desired elevation and abduction of the head of the brow.

Dr. Sasaki: How would you approach this patient’s concern about fullness of her lower lids? How would you manage her bulging fat?

Dr. Isse: Since we are discussing a surgical approach for a young patient, I would recommend an orbicularis muscle tightening procedure, using a transtemporal endoscopic approach. After undermining of the periorbital orbicularis and releasing the galea attachment to the infraorbital rim, I would place a suture at the lateral-most portion of the preseptal orbicularis. Tension is applied laterally, and the preseptal orbicularis is sutured to the deep temporal fascia. This procedure would improve the lateral two thirds of the arcus marginalis depression; the medial one third would be improved by sequential microfat injections.
**Dr. Sasaki:** How would you discuss and manage this patient’s midface findings? What would you say to her about potential side effects of your approach and its longevity?

**Dr. Isse:** I would recommend a suspension of the malar fat pad—either an endoscopic approach plus suture suspension technique using barbed polypropylene sutures, or a closed suspension of the malar fat pad with barbed sutures alone. Microfat injections would also be a possible treatment, depending on the patient’s needs and the degree of improvement. Regarding the longevity of the procedure, if the sutures were used with an endoscopic approach, I believe longevity would be as good as any suture suspension technique. If the procedure were a “closed” melopexy, I would tell the patient that suture tightening would be an option in case of relapse (progressive lifting). In my experience the duration of the closed approach is about 2 years using a minimum of 6 to 8 sutures and also reinforcing the deep temporal fascia with nonabsorbable mesh. Complications are relatively mild but frequent, including pain, tenderness, and suture palpability in the temporal area. The technique could also leave depressions.

**Dr. Sasaki:** How would you consult with this patient about her weak chin?

**Dr. Isse:** I would offer 2 alternatives: (1) a minimally invasive approach with sequential microfat injection, and (2) a transoral silicone chin augmentation.

**Dr. Sasaki:** Dr. Bell, how would you evaluate and approach this patient’s concerns?

**Dr. Bell:** With younger patients, and more and more patients present at a younger age, I think it is very important to strategize a long-term plan because they are highly motivated. With this patient, I would point out that she has tweezed her lateral brow excessively, which contributes to her stern look, emphasizing the heavy medial brow.

In terms of a surgical approach, I would endoscopically thin her corrugators, but I do not think she needs medial suspension. Regarding her lower lids, I would consider a conservative approach, probably offering microimplantation of fat to the lower orbital rims and below the orbital rims to build the area. As an alternative, I would also consider transposing the medial and the central fat pads over the orbital rim to smooth the area. I am not inspired to do anything with the midface at this time. Submental lipoplasty would help define her jawline. I would need to see a profile view to better decide on chin treatment.

**Dr. Sasaki:** Dr. Bell, this patient demonstrates a normal prominence overlying her lower lid tarsus. How would you discuss this finding with her in relation to management of her palpebral fat?

**Dr. Bell:** I would reassure her that this muscle fullness is normal in younger patients and that it tends to flatten out with aging. I would encourage her not to thin it out.

**Dr. Sasaki:** Dr. Ruff, do you have any comments you would like to add?

**Dr. Ruff:** Part of her angry look is caused by the subtle contraction of her orbicularis oris and mentalis muscles. Although augmenting her chin would help alleviate this tension, it would not address her short vertical chin dimension. Accordingly, I would favor a genioplasty to elongate as well as advance the chin. This would also tighten the neck and marionette lines more effectively than simple augmentation with an implant.

**Dr. Sasaki:** The second patient is a 32-year-old woman with no previous surgery, Botox, or fillers. She is concerned about her tired appearance, excess upper lid skin, lower lid fullness, midface flatness, and lower face chubbiness (Figure 2). Dr. Ruff, how would you assess and manage this patient?

**Dr. Ruff:** I think her tired appearance is largely due to her periorbital area; her upper lids have a lot of redundant skin, and I see some fine wrinkling in her lower eyelids similar to the patient in Figure 1. She has a negative vector, as described by Rees and LaTrenta, manifested as prominence over the tarsal plate. From a craniofacial perspective, this results when the globe projects anterior to the inferior orbital rim. She has a mild tear trough medially, and I would discuss with her whether that needs to be addressed. I certainly think she could benefit from an upper lid blepharoplasty. To address the fine wrinkles in the lower lid, I would do a trichloroacetic acid chemical peel. Regarding her lower face, which she describes as chubby, I think she is referring to the portions over the mandibular angle. I might consider an intraoral reduction of the angle, trimming the deep portion of the maseter in that area. At age 32, I would not expect her skin to become redundant with a reduction of her facial skeleton. If the issue is her submalar fullness, then a buccal fat pad reduction would suffice.
Dr. Sasaki: Dr. Ruff, how would you determine, in this young patient, whether she exhibits pseudoptosis of upper lid skin from brow ptosis, primary extra skin confined to the lid itself, or both?

Dr. Ruff: I would ask her to look in the mirror while I manually raised her brows. Rarely does the excess skin of the upper lids disappear in most patients before the patient protests that he or she looks “surprised.” Accordingly, I discuss blepharoplasty, brow lift, and a combination of the two. With brow lift, I prefer to first lift the brow and then, when it is stabilized, I can precisely resect the upper lid skin. Otherwise, when performing both procedures simultaneously, either of them may lead to transient lagophthalmos or residual blepharochalasis.

Dr. Sasaki: How would you address this patient’s concern that her midface is flat and ill defined? Is your impression that this finding primarily involves a bone rather than a soft tissue deficiency?

Dr. Ruff: Her inferior rim lacks projection, whereas her transverse dimension is harmonious with her orbital width.

Dr. Sasaki: Would this patient benefit from a suture suspension procedure? Cheek augmentation with alloplastic material? Microfat grafting?

Dr. Ruff: Suture suspension is an option for her brow but not for her cheek (because there is no redundancy in her nasolabial fold). I would recommend microfat grafts because they take well along the rim (between the orbicularis oculi and levator labii superioris). Although an allograft would provide predictable volume, finessing the infraorbital nerve, even with polytetrafluoroethylene, makes this slightly less desirable.

Dr. Sasaki: Dr. Isse, do you have any comments to add about this patient?

Dr. Isse: In this patient, I would recommend endoscopic forehead lift, with endoscopic suborbicularis dissection to unfold the orbicularis oculi muscle, and skin-only upper blepharoplasty. The blepharoplasty could be performed concomitantly with the forehead lift or as a secondary procedure. I would not recommend blepharoplasty as the only procedure because future droopiness of the brow and accentuation of the frown lines would be expected. The patient has an asymmetric brow; the left appears lower than the right, as seen clearly at the level of the supratarsal fold. The lower eyelid and malar and submalar area complex could be treated with a single approach and maneuver, repositioning the submalar fatty adipose tissue onto the malar area, and reducing the lower eyelid elongation. I would do this using the transtemporal endoscopic midface approach assisted by the suture suspension technique. During this approach the submalar region will be “emptied”
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Dr. Sasaki: Dr. Bell, do you have further suggestions for this patient?

Dr. Bell: I do not see any evidence of compensated brow ptosis. Her brow appears to be in a good position, so I think an isolated upper blepharoplasty would be appropriate. I would be careful not to expose too much of her pretarsal skin because that would change her look excessively. She has some medial hollowing below the medial and central fat pads of her lower lids. As with the first patient, I would offer fat microinfiltration versus transposing the medial and central fat pads over the orbital rim. I would not do any work on her lower face at this time.

Dr. Sasaki: The third patient is a 35-year-old woman who has recently noticed drooping of her brows, producing a “sinister” appearance. She is also concerned about puffiness in her upper and lower lids as well as increase in midface irregularities (Figure 3). She has not had soft tissue fillers but was treated with Botox to her frown muscle 3 years ago. Dr. Bell, how would you evaluate and manage this patient’s concerns?

Dr. Bell: The Botox is obviously not an issue now. She appears to have compensated brow ptosis. She is elevating her brow and has horizontal forehead creases at a relatively young age. I would point out to her that she is holding the brow in an elevated position. Gazing into a mirror, I would ask her to close her eyes, trying to relax her forehead as much as possible. I would have her gradually open her eyes, looking into the mirror with her brow in the resting position. In such a manner, she would see what she looks like when she is not compensating. I think she needs a brow lift.

The upper eyelids are fine, and I would not do anything with them at this time. The lower eyelids are more of an issue. She has some asymmetry of the fat pads. Again, I would offer her a transposition of the medial and central fat pads over the orbital rims. Lastly, I would talk to her about a short-scar face lift to elevate her cheeks and augment her malar region with her SMAS.

Dr. Sasaki: Regarding the brow procedure that you recommend, could you expand on your technique to correct the “sinister” look in this patient? What are your dissection planes? What structures would you release? What are your methods and vectors for fixation?

Dr. Bell: I would offer her a subperiosteal endoscopic brow lift via 5 portals. The 2 sagitally directed portals over the temporal crest area behind the hairline are the 2 fixation points. I would thin out the corrugator and procerus muscles. It is important to widely release the condensation of the pericranium and galea over the superior orbital rims from temporal crest to temporal crest. Once this plane is opened it is spread to ensure full release. This allows for reduced tension with the lift. I prefer Sherlock titanium screws (Fountain of Youth Institute, Palm Harbor, FL) for permanent suture fixation.

Dr. Sasaki: Dr. Bell, what role do you think her brow fat plays in contributing to her upper lid appearance?

Dr. Bell: She has fullness over the superior orbital rims that I do not find objectionable. I think this brow fat will be more of a future concern if she does not have a brow lift.

Dr. Sasaki: Dr. Bell, how do you select the surgical approach to use in this patient’s lower lids—transcutaneous or transconjunctival?

Dr. Bell: I prefer a transcutaneous approach for the fat pad transposition since I find the exposure better for my technique.

Dr. Sasaki: How would you decide how to manage the lower lid fat in this patient? Transpose it back into orbit? Transpose it over the rim? Remove it?

Dr. Bell: Typically, I prefer to transpose the fat pads over the rim. If there is excess fat, I occasionally excise a portion as well as transposing the balance.

Dr. Sasaki: Dr. Bell, would you combine your lower lid procedure with your midface procedure? How would you technically improve the bulging of the lower lid and anterior midface irregularities in this patient?

Dr. Bell: Yes, I would combine the lower lid and midface procedures. I think the transposition would take care of the bulging as well as fill in the orbital rim hollows. The SMAS
elevation and rotation over the malar prominence would highlight her cheekbones and soften her nasolabial creases.

**Dr. Sasaki:** Dr. Isse or Dr. Ruff, do you have any suggestions for this patient?

**Dr. Ruff:** I would like to address her downturned mouth, which contributes to her “sinister” appearance. I reliably lift the commissures by advancing the origins of the levator anguli oris and zygomaticus muscles after subperiosteal release. The levator is captured through an upper buccal sulcus incision and the zygomaticus from the temporal scalp. I sew them to the deep temporal fascia. This would also reduce the tear trough and enhance the malar eminence. Barbed sutures would nicely shear the redundant skin of the nasolabial fold over the muscular layer.

**Dr. Sasaki:** How would you address this patient’s lower lid fat?

**Dr. Ruff:** The shadow under the tarsal plate can be characterized as a strong negative vector (described years ago by Rees and LaTrenta). We should be cautious about taking any fat out. So, I would primarily translocate fat in this circumstance. However, to address the asymmetry, even though she has a negative vector, I think some fat could be removed on the right side. I take fat out occasionally, but usually not when the patient has a negative vector.

**Dr. Sasaki:** Dr. Isse, what would be your treatment plan for this patient?

**Dr. Isse:** This third patient has compensated brow ptosis, elongation of the lower eyelid, and midface ptosis. I would recommend the following: (1) endoscopic forehead plasty with an upper eyelid component (endoscopic dissection of the orbicularis muscle to unfold the muscle and allow improvement of the upper eyelid folds without eyelid skin resection); (2) transtemporal endoscopic midface repositioning performed concomitantly with suture suspension, using 6 to 8 sutures per malar area attached to deep temporal fascia and reinforced with nonabsorbable mesh for further improvement of the nasolabial fold; and (3) a transconjunctival approach to the lower eyelid for minimal excision of the central and medial fat pad.

**Dr. Sasaki:** Dr. Isse, would you elaborate on whether the results of your suture suspension technique to the midface can be more effectively performed with a “closed,” “hybrid,” or “open” approach, and can you define these approaches for the reader?

**Dr. Isse:** Yes, I think the hybrid approach is going to become more and more common because with the barbed sutures, in a closed approach, you are relying on the contraction of the redundant tissue to ultimately maintain the patient’s result, and that may take some months to occur. With the hybrid approach, the goal is to achieve fixation in 4 to 6 weeks; it...
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Dr. Sasaki: Our fourth patient is a 43-year-old Asian woman who is emphatic about retaining her ethnic appearance and minimizing any visible scars. Her primary concerns include a disappearance of her normal double lid lines and fullness of her upper lids, bulging of her lower lids, and midface irregularities (Figure 4). She has not had any surgical procedures, soft tissue fillers, or Botox. Dr. Isse, how would you evaluate and manage her concerns?

Dr. Isse: This patient will need creation of the supratarsal fold. I would use Flowers' technique for Asian blepharoplasty consisting of surgical marking of the desired height and extent of the supratarsal fold, minimal skin excision, upper eyelid fat removal, strip or preseptal orbicularis excision, and excision of the tarsal expansion of the levator aponeurosis and reattachment to the superior edge of the tarsal plate. There is an asymmetry of the lower eyelid fat pad—the right side is larger than the left—and this could be treated either by excising a small amount of fatty tissue through a transconjunctival approach or sequential microfat injection to the lower eyelid/cheek junction. There is elongation of both lower eyelids; if she agreed, a transtemporal endoscopic lower eyelid shortening procedure could be done. This maneuver would also improve the midface irregularity. The midface asymmetry might also be treated with sequential microfat injections.

Dr. Sasaki: Dr. Isse, can you precisely describe your upper lid incision in this patient?

Dr. Isse: I would delineate the upper lid incision with the use of a paper clip, as described by Flowers. The medial end of the incision would connect with the preexisting one and then gently curve upward 1 mm below the superior tarsal edge until the maximum height of the incision was reached at the midportion of the tarsal plate. Then it would gently follow the curvature of the tarsal plate laterally, remaining 4 to 5 mm higher than the lateral canthus.

Dr. Sasaki: The classical appearance of the upper lid is frequently described as a soft, full lid with minimal depressions. In this patient, how would you manage her upper lid fullness without changing her ethnic appearance?

Dr. Isse: I would accomplish this by removing a small strip of the preseptal orbicularis and minimal fat excision from the medial and central compartments.

Dr. Sasaki: Dr. Bell, do you have any comments about this patient?

Dr. Bell: She has puffiness of both the upper and lower lids. She would

Figure 4. This 45-year-old woman has had no previous surgeries. She is concerned with puffiness of the upper and lower eyelids and midface irregularities.
benefit from an anchor blepharoplasty of the upper lid, maintaining a very low crease. I like to use a curved paper clip to elevate the upper lid skin to show the patient how it will appear. Her lower lids show some medial and central fullness. Again, I would consider microfat grafting versus transposing fat pads.

**Dr. Sasaki:** Dr. Bell, could you explain your technique of microfat grafting to the lower lid?

**Dr. Bell:** I think it is very important to use small volumes of fat deep along the periosteum in multiple passes. I would reassess in 4 to 6 months to see if she needed a touch-up procedure.

**Dr. Sasaki:** Dr. Ruff, do you have any comments?

**Dr. Ruff:** A simple algorithm for bulging lower lid fat is to (1) augment the tear trough when the rim is deficient (a negative vector), (2) transpose fat when the vector is neutral, and (3) remove fat when the vector is positive.

**Dr. Sasaki:** The last patient is a 45-year-old man who previously underwent an endoscopic brow lift and liposuction to his prejowl area. Although he expresses some concerns about his lower lips and anterior cheek, his main concerns are improving drooping of the labiomandibular fold, his jowls, and the fullness in his everted lower lip (Figure 5). He does not wish to have visible scars. Dr. Ruff, how would you analyze this patient’s problems and how would you manage them?

**Dr. Ruff:** He would benefit from augmentation of his chin and malar areas with polytetrafluoroethylene via intraoral incisions. This might relax his mentalis and, hence, his lip eversion. A wavy-line excision of wet mucosa would further reduce his lower lip.

His lower face would benefit from barbed suture lifting with sutures directed to the labiomandibular groove and most dependent portions of the jowls. Two to 4 sutures per side (depending on the force required) anchored in the temple should suffice.

**Dr. Sasaki:** Dr. Isse, could you elaborate on your suture suspension technique to improve his prejowl descension?

**Dr. Isse:** This patient has an asymmetric face: the right side of the face is fuller and lower than the left. The malar/submalar relationship is inverted. The malar area appears soft and the submalar area appears “bulgy.” I would propose a transtemporal endoscopic midface repositioning with suture suspension technique, imbricating the submalar fat pad and bringing it into the malar area to produce a “high” cheek bone effect and softer submalar area. In this patient the sutures would be located lower than usual into the submalar area to grasp more fibroadipose tissue to produce the desired effect on the malar/submalar area. The distal end of the suture would be located lower than the lowermost portion of the malar bone. I would
fix 8 sutures into the deep temporal fascia over a nonabsorbable patch.

**Dr. Sasaki:** Dr. Isse, would you select a closed, open, or hybrid technique when using your suspension sutures?

**Dr. Isse:** For this patient, I would use a hybrid approach, dissecting the temporal area and the top of the malar area.

**Dr. Bell:** This 45-year-old male has slight rounding of the lateral lower eyelid. I would be concerned about lid tone. Also, I would be cautious not to change his appearance with any lateral lid support procedure. Regarding his lid-cheek junction, I would consider microfat grafting. The labiomandibular folds and jowls could be addressed by microfat grafting with a midface lift. Lastly, his lower lip fullness and eversion could be treated by a mucosal reduction to roll the lip in. I think it is important to perform a good psychological assessment of this younger male to see how reasonable he is and if he has realistic goals. One may want to consider addressing his issues in stages.

**Reference**


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1090-820X/$32.00