81 Brow Lifting: Patient Evaluation

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No evaluation for upper lid blepharoplasty is complete without considering the role of the brow. In the past, a brow lift was a daunting operation with a long ear-to-ear incision that was very bothersome to most patients, and thus avoided by many. With the availability of using endoscopic techniques and a few other options, brow lifts are now much easier for patient and surgeon alike. This unit will discuss the evaluation process and current techniques for brow-lifting procedures.

Evaluation

As with any patient–doctor consultation, listening to the patient carefully to understand their concerns is paramount in making a patient happy postoperatively. Occasionally, the patient will make this easy for us by demonstrating what bothers them. If they pull up on the brow to show the look they want, a brow lift will be part of the equation; if they pull forward on the excess skin, an upper lid blepharoplasty alone may suffice.

Often, however, the best plan is more elusive. While listening to patients, watch how they use their brows. Also watch carefully as they bring the mirror up to view themselves. Look at their brow positions when their foreheads are completely relaxed. At the same time, evaluate the upper lids. Are the brows relaxed? Are they constantly raised? How much are the brows contributing to the appearance of the excess skin in the upper lids? Is there a significant lateral overhang of the "skin" which is actually due to brow position? Do the lids have an underlying ptosis, and are the brows raised to compensate? Is there significant tissue fullness at the top of the nose when the brows are relaxed?

Once you have these answers in your mind, go over all of them with the patient whether or not they have indicated an interest in a brow lift. Working from top to bottom, review hairline position, brow rhytids, brow position (both where the patient holds it and when relaxed), and then upper lids. Try to demonstrate the desired position of the brow and how the upper lid would look both with and without a brow lift. Careful attention to patients' reactions while demonstrating potential results will provide valuable clues to which procedure may be indicated.

In the presence of eyelid ptosis or blepharochalasis, additional conversation is required to educate the patient on the role of the brow relative to the upper lids. This can be demonstrated in part by having the patient relax their brow and observe the difference in lid position or amount of the excess skin this creates. Sometimes, in the case of ptosis, the brow may relax if the lid is lifted by the physician. That is, the patient who is most likely to experience brow relaxation postoperatively.

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The most complicated patient is the one with ptosis or severe blepharochalasis who cannot relax their brow during the evaluation. There is no way to determine whether or not this patient will relax the brow once the upper lids have been corrected. This is the time for careful discussion, so that should they decide not to do a brow lift, it is understood that the postoperative brow position may be different from what they are used to. It is helpful to keep the possibility of a future brow lift open to the patient and even more helpful if they understand this possibility prior to doing any surgery.

Many patients fear a "deer in the headlights" look postoperatively. These are typically those who constantly use their frontalis muscle to compensate for heavy lids. These patients will find that after a brow lift, the eyebrow tends to maintain its preoperative position and the forehead above the brow is smoother and less wrinkled after the brow lift. Patients with low brows who do not use the frontalis muscle significantly tend to desire a higher brow position and are the easiest to please.

Current Techniques

The traditional brow lift involves a coronal incision which extends from ear to ear across the top of the head. This approach can provide significant elevation of the brows but can also raise a patient's hairline. The incision is planned within the hair-bearing scalp several centimeters posterior to the anterior hairline. Preoperative marking involves a vertical line down the center of the forehead, and paracentral markings perpendicular to the line of incision. The hair is parted along the planned incision line and tied with small rubber bands. Under sedation or general anesthesia, the brow and incision area is infiltrated with a mixture of 0.5 % lidocaine and 0.5 % bupivacaine, with epinephrine. The patient is prepped a draped and an incision running ear to ear is made using cautery as necessary for hemostasis. Dissection is performed along the pre-galeal plane inferiorly to the superior orbital rim, and laterally over the temporalis muscle. Once the brow is mobilized, the corrugator muscle can be gently transected, taking care to avoid the supratrochlear and supraorbital vessels and nerves. The brow is then positioned into desired position using the midline markings as guidance for centering the brow. The excess skin is removed from either edge of the incision. The tissues are closed in a double layer using absorbable sutures for the deeper tissues and either nonabsorbable sutures or staples for the skin. The sutures or staples can be removed 9–10 days postoperatively.

The anterior hairline (or pre-trichial) brow lift is a modified version of the coronal brow lift. This is useful in patients who already have high hairlines. In this method, the incision extends superiorly in hair-bearing scalp and then turns anteriorly to hug the front of the hairline. Non-hair-bearing scalp is removed as the excess skin, effectively lowering the hairline. The skin is carefully closed in two layers with meticulous attention to aligning the wound edges where the scar may be visible. The skin along the anterior hairline is closed with nonabsorbable suture which is removed 6–7 days postoperatively.

Endoscopic techniques may also be used for lifting the brow. The ideal patient has a normal to low hairline and is seeking a moderate amount of lift. In this method, several small incisions are planned in the hair-bearing scalp. There will typically be two incisions in the paramedian plane and two incisions over the parietotemporal region. A smaller central incision can be useful as well. Long slender instruments are used to elevate the brow from the underlying bone in the center and along the deep temporalis fascia laterally over the muscle. Full dissection to the orbital rim is performed under endoscopic visualization. In this surgery, there is no removal of excess tissue. Instead, the skin and muscle of the brow are anchored in an elevated position using Endotine (MicroAire) absorbable implants. Other fixation methods are also available.