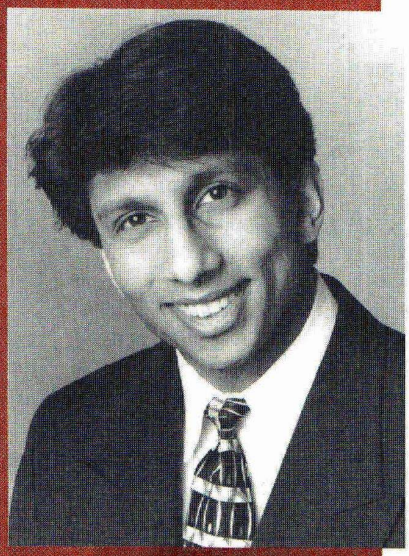


Ethnic Considerations in Eyelid Surgery

by Amiya Prasad, MD, FACS

While basic principles for optimal outcomes in blepharoplasty are still applicable, variations in surgical design are required in non-Caucasian patients

When evaluating a patient for cosmetic eyelid surgery, several factors are considered when determining which procedure or procedures are most appropriate: ethnic background, sex, age, appearance, previous surgery, including chemical peels or lasers, and presence of ocular conditions, such as dry eye.

Ethnic consideration when evaluating non-Caucasian patients often focuses on people of Asian or African descent.

Discussion of the particular anatomic and aesthetic issues of these ethnic groups is necessarily central to this topic; however, it is still quite important when evaluating the Caucasian individual. I feel that the classification of an individual as Caucasian limits the reality of the diversity of ethnic origins, which must be factored into the surgical decision making process. Whether consciously or intuitively, an experienced surgeon knows that the patient with blue eyes of Irish descent will undergo a different procedure and have different options in comparison to the individual of Mediterranean descent, although both may be classified as Caucasian.

Motivation for seeking eyelid enhancement procedures may be divided into two categories: nonage-related and age-related. A typical example of a patient presenting with a nonage-related problem is a 30-year-old female who has had puffy lower lids since childhood and now desires lower lid surgery. Another example would be a 35-year-old Asian male who desires upper or double eyelid surgery.

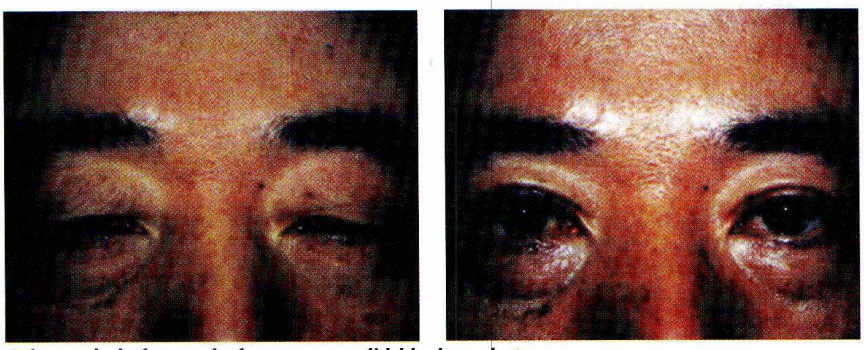
Age-related changes typically present as sagging of upper eyelids with redundant skin, as well as sagging of the lower eyelids with the prolapse of anterior orbital fat.

The Asian Patient

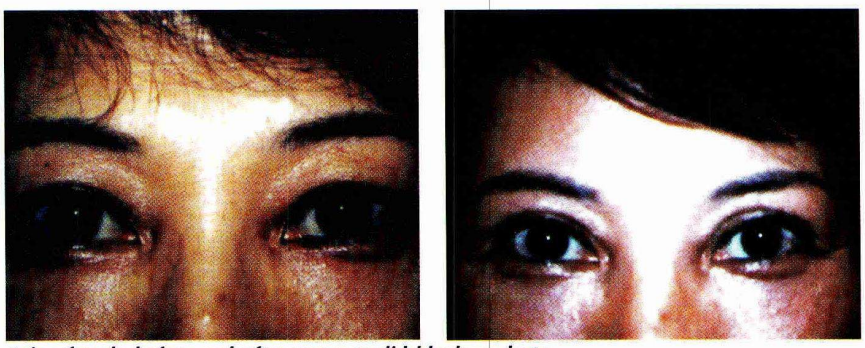
Double eyelid surgery is a common procedure for patients of Asian descent that is nonage related. The most frequently expressed concern is the desire to maintain a natural appearance after surgery. Unfortunately, many Asian patients come in with anecdotes of people they know who underwent eyelid surgery with poor outcomes. At this time, it is generally understood that the Asian patient does not desire Europeanization of the eyelids, which translates into a high eyelid crease with less tissue volume over the eyes. The Asian patient typically desires a crease in the eyelid, which approximately 50% of Asians naturally have. Although there are options, such as having the crease taper directly into the epicanthal fold, or having the crease taper

parallel to the fold, I have found that there is a natural tendency of the crease to form in a way that is appropriate for each individual anatomy. This may be predicted during consultation by placing an instrument at the planned eyelid crease to push the skin inward. Very often, it is easy to demonstrate to the patient what the most natural appearance would be. The eyelid crease is lower in the Asian patient than in Caucasian patients of the same age and sex.

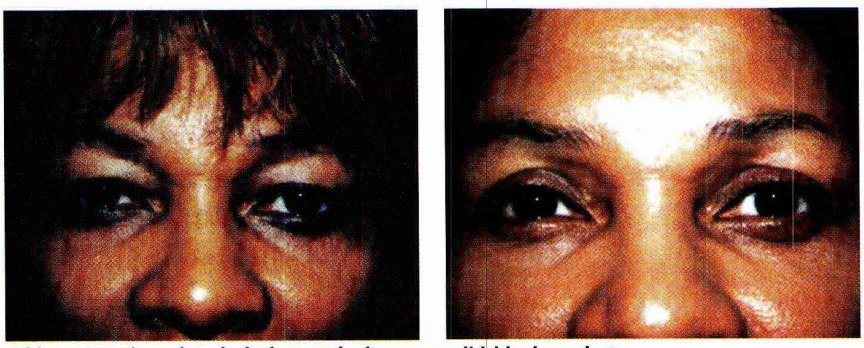
PHOTOS COURTESY OF AMIYA PRASAD, MD, FACS



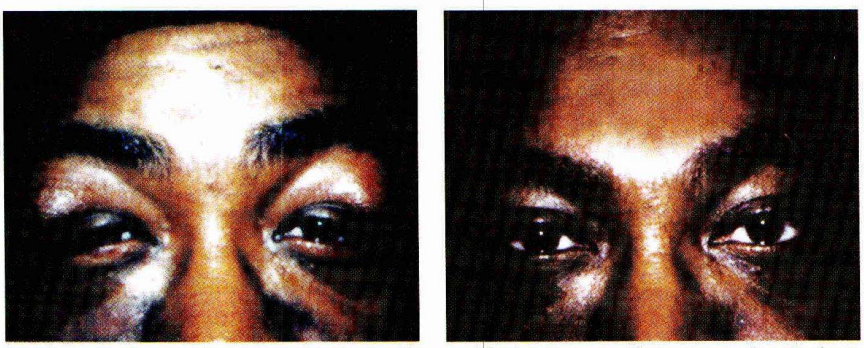
Asian male before and after upper eyelid blepharoplasty.



Asian female before and after upper eyelid blepharoplasty.



African American female before and after upper lid blepharoplasty.



African American male, who presented with sarcoidosis. One month postoperative. Patient has undergone orbital surgery for lacrimal gland enlargement.

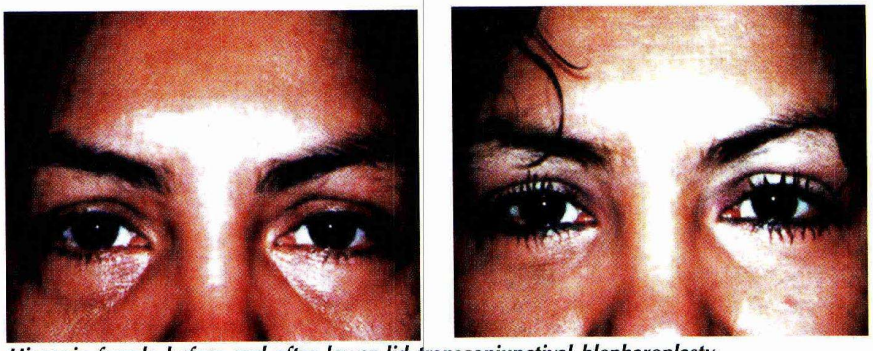
Many patients who desire upper eyelid enhancement will have some impression in the skin, where the eyelid creases inward occasionally. If this impression is not present, I use the height of the tarsus as a starting point although, aesthetically, the crease may need to be lower. The thickness of the skin in Asians requires careful consideration, as the transition of subbrow skin to upper eyelid skin in Asian patients is not uniformly the same. Many patients have thick skin all the way to the lashes while others have a more "usual" transition of thick skin at the sub-brow area to thinner skin at the planned crease area. The orbital septum inserts at a lower point on the eyelid. I generally incise the septum and very conservatively remove fat—mainly for the purpose to provide a barrier free pathway for skin sutures to incorporate the levator aponeurosis during closure. I have had many patients who present with overresection of fat from previous surgeries, resulting in high and unnatural creases. Some of these patients have benefited from fat transplantation in the subbrow region and the anterior orbit.

African American Patients

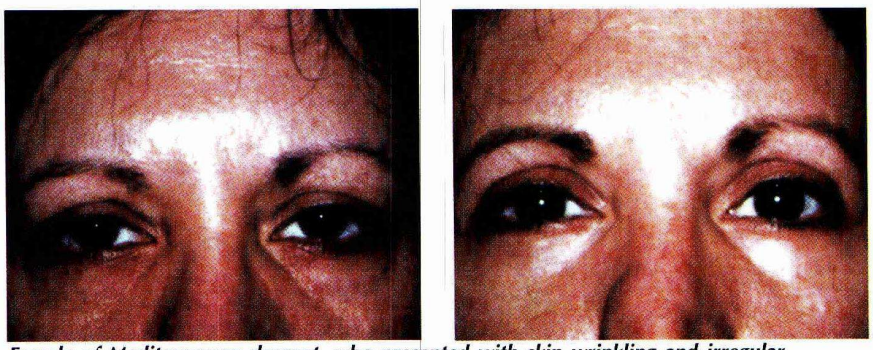
African American patients who come in for consultation are almost uniformly concerned about the formation of keloids. As most surgeons are aware, the term keloid is often used to describe a slightly elevated scar, hyperpigmented scar, or widened scar. Nonetheless, unsightly scarring is of major concern. Frequently, African American patients are concerned about the surgeon's familiarity with African American surgery. As with Asian patients, these patients are also extremely concerned about a natural appearance. Relatively thicker skin in the subbrow area and heavier subbrow fat pads are commonly present when upper eyelid surgery is performed. Many surgeons extend the upper eyelid crease beyond the lateral canthus into the crow's feet area in Caucasian patients. This generally is not ideal in the African American patient as the scar will most likely be too obvious.

Assuming that the skin incision will heal with either hyperpigmentation or hypopigmentation is a good way of remembering to design the upper eyelid incisions to remain within the limits of the orbit. It is also important to note that many patients of African descent have epicanthal folds and need special attention to the design of the upper lid creases.

Although the presence of brow ptosis is common, particularly in patients who come in for age-related changes, there is often hesitation to undergo brow surgery—endoscopic or otherwise. I have found that performing limited skin excision in upper eyelids, and resection of or-



Hispanic female before and after lower lid transconjunctival blepharoplasty.



Female of Mediterranean descent, who presented with skin wrinkling and irregular pigmentation, and after Erbium laser procedure in the medial aspect of the lower eyelids.

bital fat with attention to performing resection of subbrow fat results in a natural appearance that patients are very satisfied with. I prefer to use nonabsorbable sutures in the upper eyelids to minimize tissue reaction and reduce the chances of thickened scars.

When it comes to lower lid surgery for the improvement of puffiness due to fat prolapse, I almost always use a transconjunctival approach. A transcutaneous approach may be used; however, certain other anatomic factors need to be remembered. Patients of African descent will often have prominent eyes and relative lower lid retraction. Both of these anatomic situations make the procedure more challenging.

When performing the procedure using a transconjunctival approach, potential injury to the globe must be avoided by proper positioning of protective shields and awareness by the surgeon that the angle of approach to the fat pads is "narrower" than is usual in deeper set eyes. Prominent eyes with lateral canthal tendon laxity also pose a challenge of how to best support the lower eyelid. Overtightening of the lower lid by fixation using standard techniques, such as the tarsal strip procedure can result in worsening of lower eyelid retraction by pulling the eyelid under the globe. In order to compensate for the prominence of the globe, I often perform a lateral release of lower lid retractors with supraplacement of the lateral tarsal strip adjacent to the lateral canthal tendon, instead of direct fixation to the internal aspect of the lateral orbital rim. In cases where significant relative lid retraction is present, placement of a spacer graft is necessary, especially if concurrent levator advancement surgery is planned.

Many patients of African descent say they have always had sleepy eyes, which, when examined, have mild to moderate ptosis. Standard blepharoplasty surgery alone is inadequate in theses situations as patients will remain dissatisfied with the height of their eyelids. If the levator surgery is done in a patient with prominent eyes and lower lid retraction, corneal exposure can be too great and lead to keratitis or ulceration. When a spacer graft is necessary in the lower eyelid, I use biomaterial processed from donated human tissue with success.

Sarcoidosis, which is common in the African American population, will frequently present with lacrimal gland enlargement or prolapse. Many of these patients come in for cosmetic surgery unaware that they have sarcoidosis or that this is a manifestation of their sarcoidosis.

Alternate Treatments

Patients of Arab, Asian, Indian, or Hispanic descent share many of the same concerns already discussed. In addition, there is a significant concern with dark circles under the eyes. In approaching the problem of these dark circles, I limit the use of chemical peels and lasers, such as the Erbium laser, to patients with more superficial rhytidosis and solar damage. When performing an Erbium laser procedure, it is important to have a gradual transition from the treated area to the untreated area. I have found the greatest degree of success in the medial lower eyelids. Patients appreciate the improvement in coloration as well as a decrease in the crepe paper appearance in that area. Familial hyperpigmentation is treated with topical products such as hydroquinone; however, irritation and frustration often result in poor compliance.

It is paramount to preserve and optimize ocular function through proper eyelid positioning and awareness of ocular and systemic conditions.

Although there are some very specific issues that require attention when operating on patients of certain backgrounds, the basic principles of skin and orbital anatomy remain the basis for optimal eyelid enhancement. Subtle variations in design and resection of tissue combined with the appropriate choices of suture and graft material when necessary will add greater dimension in the surgeon's ability to perform blepharoplasty on all ethnic groups. As always, it is paramount to preserve and optimize ocular function through proper eyelid positioning and awareness of ocular and systemic conditions. ■

About the Author

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