Upper Blepharoplasty Technique to Address Lateral Eyelid Hooding

Eyal Levit, MD, Artur Rozentsvit, DO

Advanced Dermatology Laser & Cosmetic Surgery

Brooklyn, NY, USA

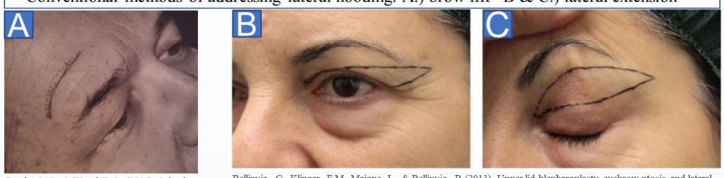
Introduction

Blepharoplasty is the third most common cosmetic procedure performed in the United States. So, it is not surprising that the approach to surgical eyelid rejuvenation has seen considerable changes over the centuries that it has been performed. The modern blepharoplasty technique was developed and coined by Salvador Castanares in 1951, marking a new era for the procedure which now addressed both the skin laxity and the fat herniation: the two culprits behind eyelid aging.

When it comes to upper eyelid blepharoplasty, the technique behind this procedure has seen far fewer developments than that of the lower eyelid. The biggest and most inevitable-seeming problem with upper lid blepharoplasty is lateral hooding of the eyelid. This issue is the result of removal of excess skin from the anterior lamella portion of the eyelid without adequate skin subtraction from the area superior to the lateral canthus.

One of the techniques developed to remedy this unaesthetic result is a lateral brow lift while another is extension of the incision laterally in order to excise the problematic hooding. Both of these methods often yield unsatisfactory results and increased morbidity in the recovery period. The former modification requires an additional incision which with time stretches inferiorly to regenerate some of the previously addressed lateral hooding and the latter leaves a noticeable scar due to its extension outside of the orbital rim, also known as the eyelid cosmetic unit.

Conventional methods of addressing lateral hooding: A.) brow lift B & C.) lateral extension



Brody, G. S., & Wood, D. L. (2006). Salvador Castañares, M.D., 1908 to 2005: Plastic and Reconstructive surgery. . doi:10.1097/01.prs.0000238075.15300.8a

Bellinvia, G., Klinger, F.M., Maione, L., & Bellinvia, P. (2013). Upper lid blepharoplasty, eyebrow ptosis, and lateral hooding. *Aesthetic surgery journal, 33 1*, 24-30 .

Objectives

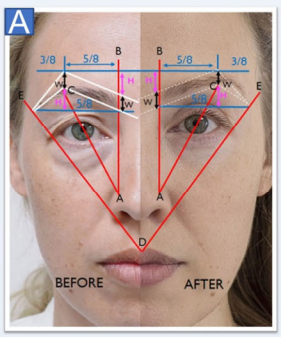
We developed a new technique, which utilizes lateral upper eyelid periosteal tacking sutures with either permanent or absorbable sutures, to address lateral hooding without extended incisions and unaesthetic scars.

Description of Surgical Technique

The new technique for upper eyelid blepharoplasty requires two incisions for each eye. The first is a triangular incision that begins at the upward slope of the lateral brow measuring approximately 1.5 cm in length. The upper eyelid blepharoplasty skin and fat excision is carried out in the usual fashion.

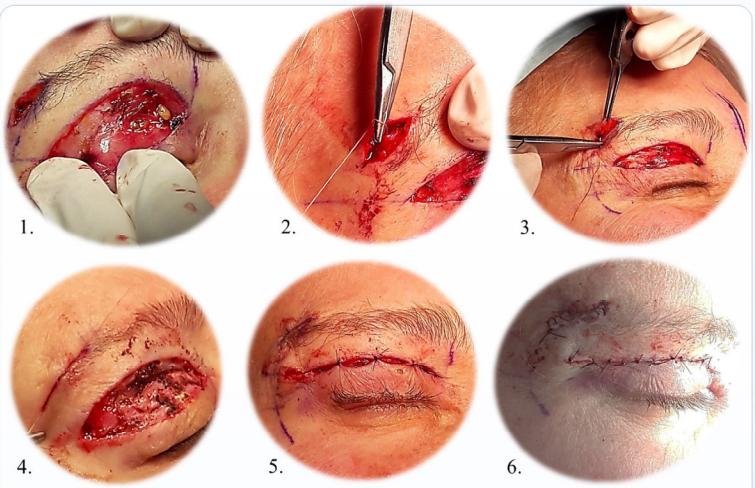
After the appropriate amount of skin and fat have been removed, it is important to compare the eyelids for symmetry and if necessary, make the proper adjustments. It is vital to avoid removing excess skin and muscle, which can lead to *lag opthalmus* and to be cautious not to remove so much fat that the eyelid assumes a hollowed-out appearance. Closure of the eyebrow begins with the periosteal tacking sutures. One or two absorbable 4-0 vicryl or permanent 4.0 prolene tacking sutures are used to fix the eyebrow to its new desired position that had been previously marked and discussed with the patient. Next, two 4-0 vicryl dermal sutures are applied and lastly the skin is closed using a 5-0 ethilon running suture.

Since there is more tension placed on the lateral skin of the eyelid with the new elevated brow position, it is important to use a periosteal tacking suture for the lateral eyelid incision as well. This is achieved with one or two absorbable 4.0 vicryl sutures, depending on the degree of tension. An additional dermal suture is placed laterally. Although an initial puckering of the lateral skin may be visible, this is temporary and allows for reduced tension on the incision line until the epidermal sutures are removed in 5-7 days. Reduced incisional tension makes for more effective wound healing and a less visible scar. The skin is approximated with interrupted or running 5-0 ethilon suture.



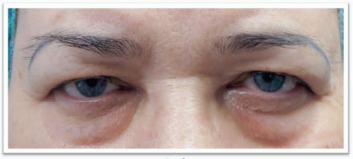
A.) 5/8-3/8 rule for periosteal tacking location

B.) Marking the lateral brow and eyelid



Results

Before



Before

After

After

Side-by-side comparison

Side-by-side comparison

Conclusions

Our technique for upper blepharoplasty is a safe and effective new variation on an age-old procedure and is a less-invasive approach to correcting the bane of the blepharoplasty procedure: the lateral eyelid hooding and the often-visible lateral eyelid scar. By performing a lateral eyebrow skin excision, we reduce the weight exerted by the brow on the lateral upper eyelid skin. By using a periosteal tacking suture we can secure the brow position and reduce the skin stretch that invariably occurs after the epidermal sutures are removed. Periosteal tacking obviates the need for visible brow incisions or extension of the elliptical eyelid incision outside of the orbital cosmetic unit, where scarring is known to be significantly more noticeable. We will continue to follow our patients prospectively and further study the long-term outcomes of what we believe is an improved upper blepharoplasty procedure.

References

- Bellinvia, G., Klinger, F.M., Maione, L., & Bellinvia, P. (2013). Upper lid blepharoplasty, eyebrow ptosis, and lateral hooding. *Aesthetic surgery journal, 33 1*, 24-30 Brody, G. S., & Wood, D. L. (2006). Salvador Castañares, M.D., 1908 to 2005: Plastic and Reconstructive surgery. . doi:10.1097/01.prs.0000238075.15300.8a
- Scawn, R., Gore, S., & Joshi, N. (2016). Blepharoplasty basics for the Dermatologist. , 9(2), . Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4924419/
- Oestreicher, J., Mehta, S., & Corporation, H. P. (2012). Complications of Blepharoplasty: Prevention and management. Plastic Surgery International, 2012, . doi:10.1155/2012/252368
- Osaki, M., Osaki, T., & Osaki, T. (2016). Infrabrow skin excision associated with upper Blepharoplasty to address significant Dermatochalasis with lateral Hooding in select Asian patients. Ophthalmic plastic and reconstructive surgery. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/26866329
- Har-Shai, Y., & Hirshowitz, B. (2004). Extended upper blepharoplasty for lateral hooding of the upper eyelid using a scalpel-shaped excision: A 13-year experience. Plastic and reconstructive surgery., 113(3), 1028–35. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/15108902

Acknowledgements and Correspondence

Thank you to our wonderful patients who lent us their trust and allowed us to share their process and results with the cosmetic surgery community. And thank you to our talented staff for their help in photographically documenting our work.

Eyal Levit, MD. Medical Director at Advanced Dermatology Laser & Cosmetic Surgery. 35 West End Avenue, Brooklyn, NY 11235
Artur Rozentsvit, DO. PGY4- General Surgery. Beaumont Health. 18101 Oakwood Blvd, Dearborn, MI 48124
Skin@levitdermatology.com / Artur.Rozentsvit@beaumont.org