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Mini-incision lower lid blepharoplasty reduces postoperative complications

The procedure reduces potential complications and allows a faster recovery.

by **Chedly Bouzouaya, MD**
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The strategy in lower lid blepharoplasty is to remove the herniated orbital fat without adversely altering the shape and contour of the lid fissure, to avoid any potential complication and to allow a fast recovery for the patient.

The transconjunctival approach to lower lid blepharoplasty has gained a lot of popularity. This is partly due to a greater awareness of the potential complications by the patients interest.

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ed in aesthetic surgery and partly because the number of patients who are interested in having blepharoplasty is increasing. Moreover, patients now request blepharoplasty at an earlier age.

Historically, the transcutaneous approach has been the surgical technique of choice to resect herniated fat, resulting sometimes in lower lid ectropion, noticeable scars and lower lid retraction. The latter is the most common and dreaded complication of the transcutaneous lower lid blepharoplasty.

The transconjunctival technique was first described in 1924 by Bouquet. This approach was popularized by Tessier, who used the conjunctival approach to the orbital floor and maxilla in congenital malformation and trauma.

The traditional conjunctival approach — with incision extending from the punctum to the lateral canthus — can result in complications including cicatricial ectropion, lower lid retraction, canthal dehiscence, canalicular laceration, buttonhole laceration of lower lid and conjunctival prolapse or chemosis.

In this era of endoscopic surgery, mini-incision cataract surgery and

phacemulsification, the mini-incision transconjunctival lower lid blepharoplasty achieves the same goal, but significantly reduces surgical manipulation and complications. It also

allows a faster recovery.

Anatomy

The lower eyelid is divided into an anterior lamella with skin and orbicularis and a posterior lamella with tarsus and conjunctiva.

The capsulopalpebral fascia in the lower lid is analogous to the levator aponeurosis of the upper lid. It origi-



Sagittal cross section of the eyelids. The fat pads, the anterior and posterior lamella.

nates from attachments to the terminal muscle fibers of the inferior rectus muscle. It divides as it encircles the inferior oblique muscle then joins to form Lock-

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Blepharoplasty

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wood's suspensory ligament. The capsulopalpebral fascia inserts onto the inferior tarsal border and sends strands to the inferior conjunctival fornix, the suspensory ligament of the fornix.

The orbital septum – a multilayered thin sheet of fibrous tissue – arises from the peritarsus over the inferior orbital rim. The orbital septum fuses with the capsulopalpebral fascia at or below the inferior tarsal border. In transconjunctival blepharoplasty, the entrance into the orbital fat is made posterior to the orbital septum. Therefore, the anterior lamella is not violated.

Technique

The instrument used for this technique is the Dual Frequency unit with

foot switch assembly (Eliason International). The radiofrequency unit delivers high frequency waves at 4 MHz, the optimal frequency to cut soft tissue, as was investigated decades ago. The Eliason Dual Frequency has the capacity to deliver a variety of waveforms. The one used for blepharoplasty is the fully rectified current, which is 50% cutting and 50% hemostatic. The A3 electrode of the TEE 301 Microincision Enquire Needle electrode for transconjunctival approach is used.

The anesthesia is performed by infiltration of the fornix with 2 to 3 mL of 2% bupivacaine with 1/100,000 epinephrine. A lid plate is placed, achieving protection for the globe and helping the orbital fat to herniate. The fornix is exposed, and an incision through conjunctiva and retractors is made at the lower border of the tarsal plate for the medial, central

and lateral fat (if a lateral fat prolapse has been assessed preoperatively).

Using the newly designed lid retractor, the lower lid is retracted on its full length, allowing a nice exposure of the whole surgical field of fat prolapse and a good visualization of any bleeding. The "Cheeky lid retractor" is insulated with a nonreflective finish and is safe to use with the radiofrequency unit of the CO₂ laser.

With the lid plate pressure applied on the globe, the fat pad is teased out, held with a forceps and resected, using the radiofrequency unit.

The fat is easily resected, and if there is any bleeding, it is easily controlled by simply grasping the bleeding tissue with the forceps and touching it with the electrode. There is no need to change instruments or to clamp the fat with a hemostat across its base before

resecting it and coagulating the fat stump as is done traditionally.

The amount of fat to be removed is assessed for the central, nasal and lateral fat pockets preoperatively and is helped by the surgeon's experience.

There is no need for sutures. A combination of antibiotics and steroids is placed in the fornix, and ice packs are placed on the closed eyes.

Discussion

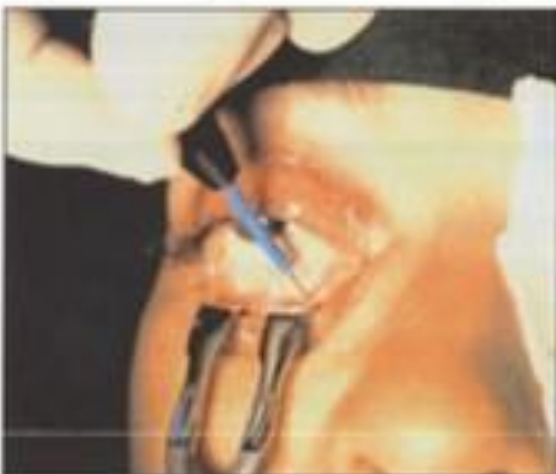
In cosmetic surgery, and cosmetic eyelid surgery in particular, the surgeon must reach excellence in his or her results. Therefore, blepharoplasty needs to be performed with extreme caution by a well-trained surgeon who is familiar with the eyelid anatomy, thus avoiding complications and poor results and allowing the patient a fast recovery.

The mini-incision transconjunctival blepharoplasty helps achieve these goals. The technique has been used for the past 5 years. The newly designed lid retractor helps the exposure and facilitates the procedure. The standard and traditional lower lid blepharoplasty with incision from the punctum to the lateral canthal angle with almost a total denervation of the lower lid retractor could result in lower lid retraction, lower lid retraction, conjunctival prolapse, injury to the canalicular system and injury to the inferior oblique muscle.

With the mini-incision transconjunctival lower lid blepharoplasty, these complications are avoided, and the recovery is very fast with minimal edema and ecchymosis. The patient can be in his or her office on the third day after the surgery. This is due to the minimal trauma caused by the technique but also to the use of the radiofrequency unit, which allows us – with quick, light, smooth strokes – to make a fine incision and bloodless fat resection without charring, with minimal lateral heat spread or collateral tissue damage.

Conclusion

In cosmetic eyelid surgery, there is no tolerance for error and complications. Patient selection, thorough evaluation of the deformity and an accurate surgical procedure with the proper instrumentation are keys to obtaining an optimal result.



Incision through conjunctiva and capsulopalpebral fascia to access the medial fat pad.



Drawing of the bulbar conjunctiva incision.



Cheeky lid retractor is in place. The three lower eyelid fat pads are nicely exposed.



The three lower eyelid fat pads removed separately.



Preoperative view: lower eyelid fat prolapse.



Postoperative view: nice symmetrical results.