Upper Blepharoplasty

106

Aline Rodrigues Bragatto
and Cristina Hachul Moreno

106.1 Materials (Fig. 106.1)

- Chlorhexidine in aqueous solution and sterile fields
- 2% xylocaine and 1:100,000 epinephrine
- 27 to 30 gauge needle and 3-ml syringe
- Mononylon 6.0 and 5.0
- Number 15 scalpel, needle holder, hemostatic, Addison pick up, iris scissors.

106.2 Methods and Techniques

- To achieve optimal surgical results, proper patient selection is extremely important. Preoperative exams and cardiologic test are necessary.
- All the medical and ophthalmologic history of the patient must be known, especially the previous diseases, recent ophthalmic surgeries, and the presence of dry eye syndrome. Ambulatory blepharoplasty should be avoided in patients with previous ophthalmic diseases and surgery because some symptoms may be intensified.
- After preoperative photo documentations, the markings are made with the patient in a horizontal position, comfortably lying on the surgical stretcher.
- Requesting the patient to blink slowly, the eyelid crease is identified and marked. The eyelid crease is situated above the ciliary margin, approximately 6–9 mm (Fig. 106.2a, b).
- The lower limit of excision must be along the eyelid crease. The lateral extent of marking should be limited by an imaginary line joining the lateral end of the brow to the lateral canthus.
- The position of the upper marking and its extension depends on the excess skin of the eyelid that must be removed. A skin pinch test can confirm the preoperative marking (Fig. 106.3a, b).
- After antisepsis with chlorhexidine in aqueous solution, local anesthesia is injected superficially, with 2% xylocaine with 1:100,000 epinephrine. The use of a 27–30 gauge needle and a 3 ml syringe avoids pain and discomfort due to the lower injection pressure of the medication.
- First, the skin is dissected off the underlying orbicularis. For this procedure, a 15 scalpel is used because it does not cause skin injury or burn. Absolute hemostasis is maintained (Fig. 106.4a, b).

A. R. Bragatto (✉)
Aline Rodrigues Bragatto Clinic of Plastic Surgery, Valinhos, SP, Brazil

Department of Plastic Surgery, Santa Casa of São Paulo University Hospital, São Paulo, SP, Brazil

C. H. Moreno
Department of Plastic Surgery, Santa Casa of São Paulo University Hospital, São Paulo, SP, Brazil

Cristina Hachul Moreno Clinic of Plastic Surgery, São Paulo, SP, Brazil

A. Da Costa (ed.), *Minimally Invasive Aesthetic Procedures*,
https://doi.org/10.1007/978-3-319-78265-2_106

Fig. 106.1 Surgical instruments

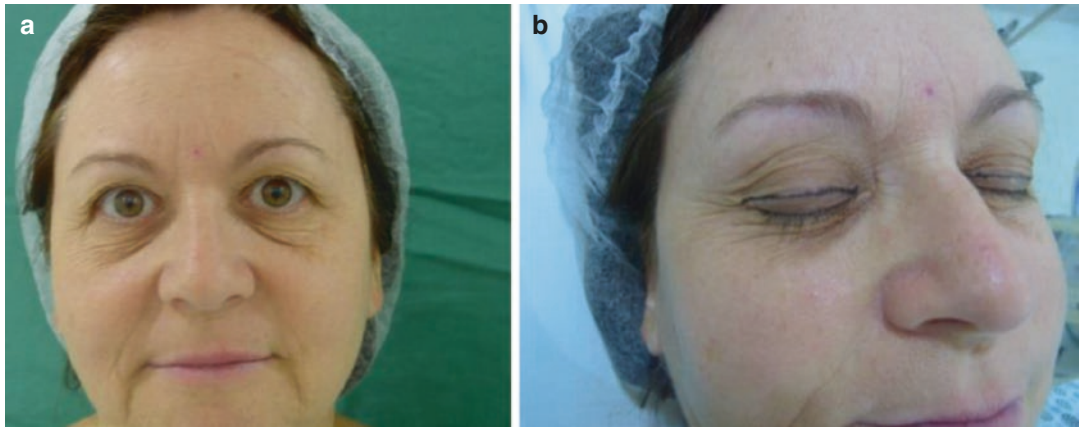

Fig. 106.2 (**a**) Preoperative, (**b**) eyelid crease and lower marking

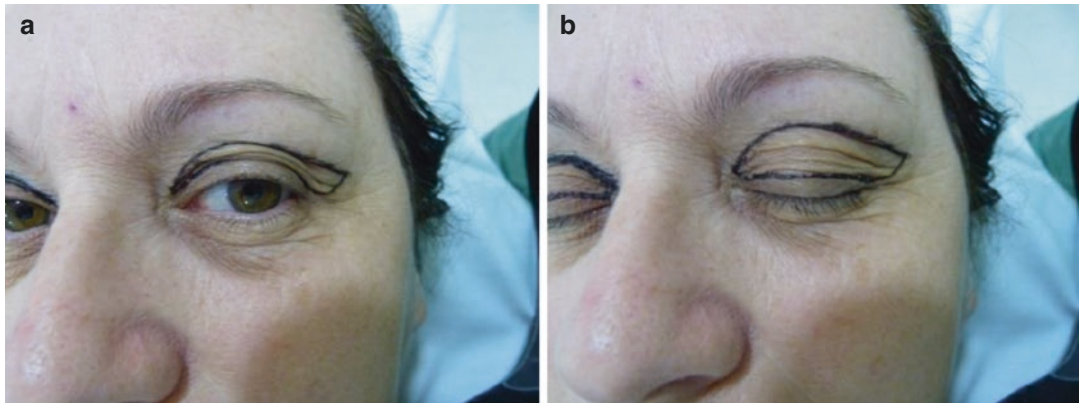

Fig. 106.3 (**a**, **b**) Preoperative markings

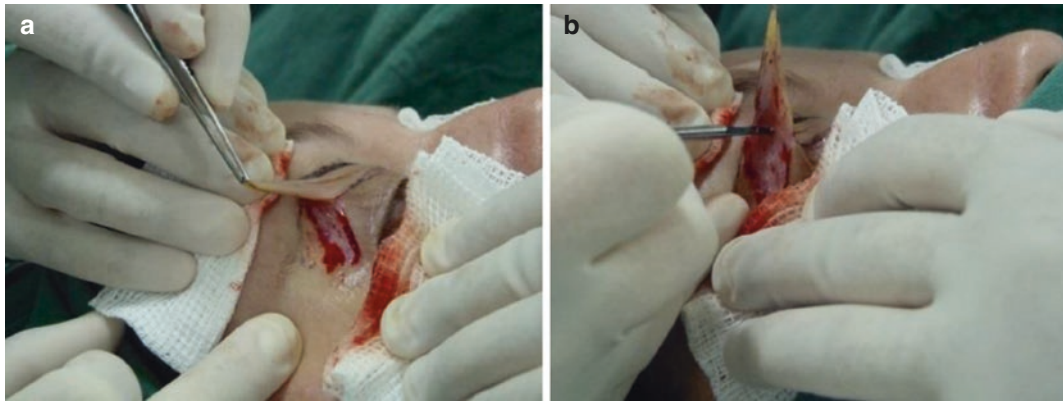

Fig. 106.4 (**a**, **b**) Skin incisions

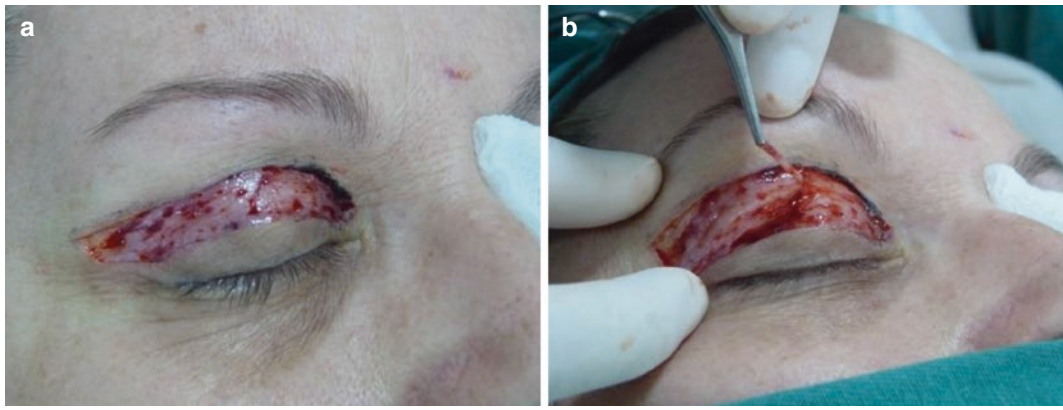

Fig. 106.5 (**a**, **b**) Remove a small strip of the orbicularis muscle

- A small strip of the orbicularis muscle is removed. This procedure increases the eyelid crease and removes the redundancy of the muscle that can cause volume in the upper eyelid. The strip of orbicularis muscle must be removed with a precise and gentle technique so as not to reach the orbicular septum and the elevator muscle of the upper eyelid (Fig. 106.5a, b).
- The two fat compartments, medial and central, can be accessed through a small incision in the septum. The fat is gently teased out, avoiding excessive traction and resection. With the use of a gently curved Kelly, small segments of fat are cut off, and the residual base is cauterized (Fig. 106.6a–d).
- The skin incision is closed with intradermic mononylon 5-0 sutures. If necessary, closure is completed with interrupted mononylon 6-0 sutures (Fig. 106.7a, b).

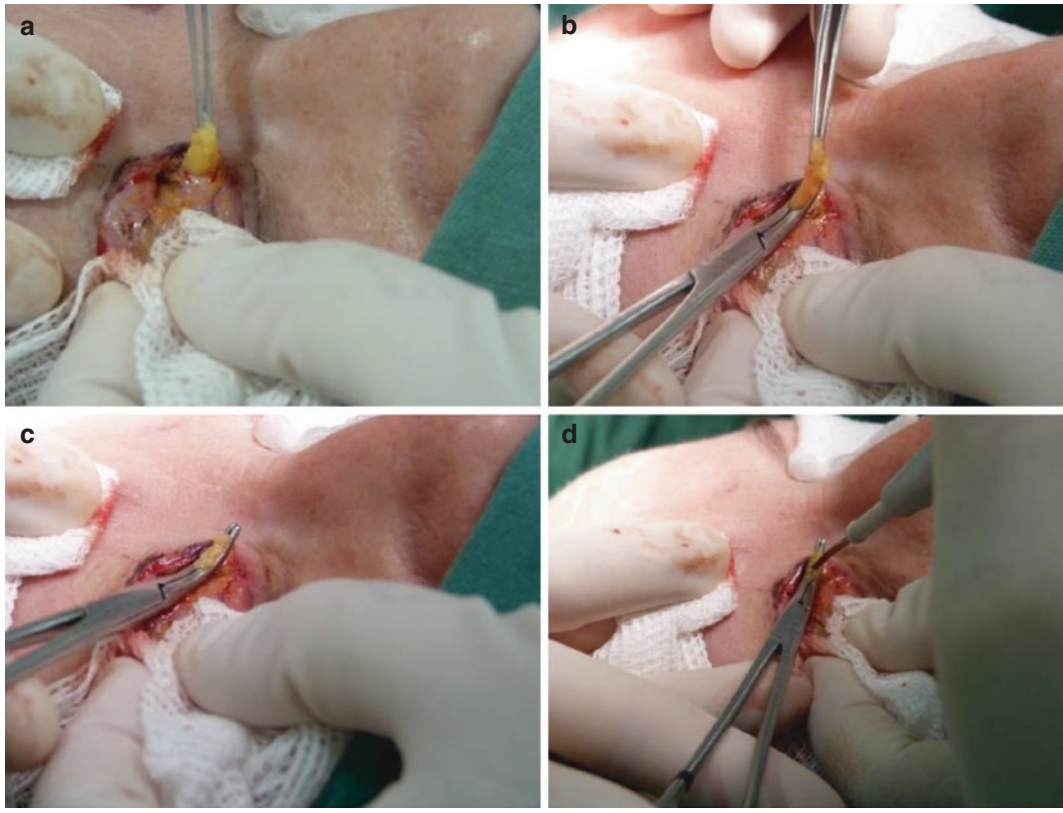

Fig. 106.6 (**a, b**) Identification of fat after incision of the septum, (**c**, **d**) fat resection and cauterization

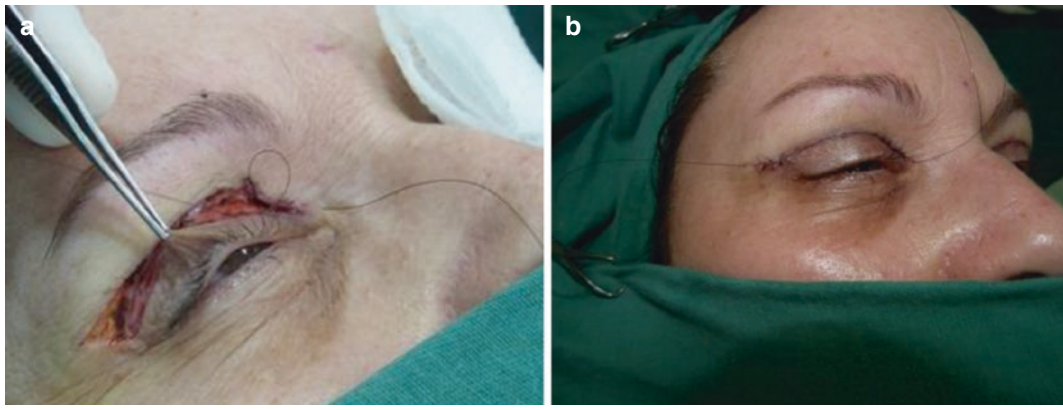

Fig. 106.7 (**a**, **b**) Skin closure

106.3 Clinical Follow-Up

- During the postoperative period, it is recommended to rest and to use cold compress on the eyes to reduce swelling. Also, lubricating eye drops may reduce discomfort.
- The suture is removed after 1 week. The swelling and ecchymosis reduce in 2 weeks (Fig. 106.8), and results can be better noticed after 1–3 months.

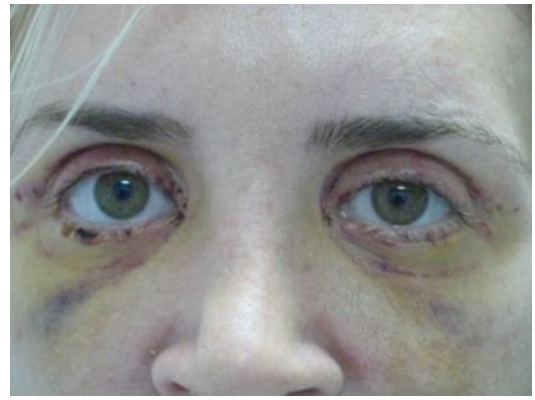

Fig. 106.8 Ecchymosis after 1 week

106.4 Before and After (Figs. 106.9, 106.10, and 106.11)

Fig. 106.9 (**a**) Before, (**b**) after superior blepharoplasty

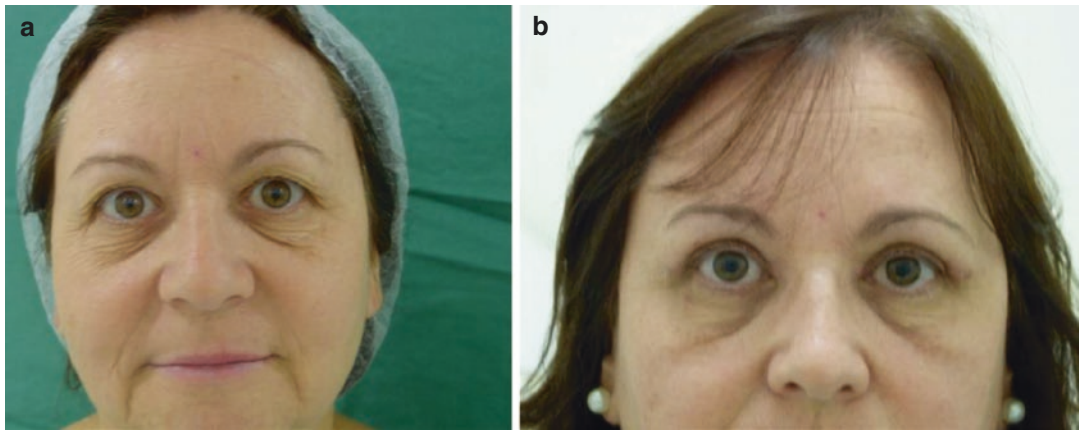

Fig. 106.10 (**a**) Before, (**b**) after superior blepharoplasty

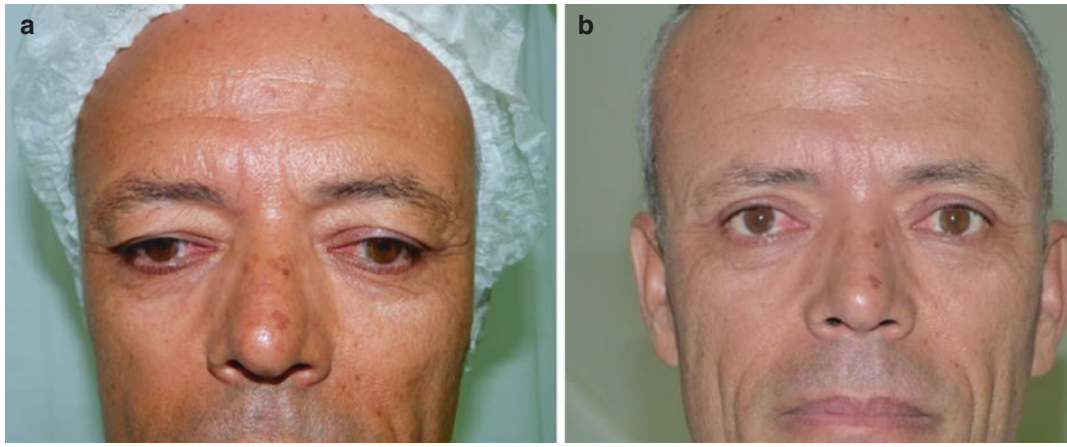

Fig. 106.11 (**a**) Before, (**b**) after superior blepharoplasty

106.5 Side Effects, Complications, and Their Management

- Although blepharoplasty has a high probability of success, surgeons must have full control of the operative technique and know the eyelid and ocular orbit anatomy, besides a careful postoperative follow-up.
- Complications may occur post blepharoplasty, however, as early as a complications are recognized an appropriate treatment is mandatory.
- Deep orbital hemorrhage is a rare complication, estimated to be 1:2000 (0.05%), and it may result in permanent visual loss 1:10.000 (0.01%) [1]. Incision of the orbital septum and manipulation of orbital fat are the reasons for bleeding.
- Hemorrhage can be prevented with rigorous hemostasis, delicate manipulation of structures, and adequate cauterization of fats during resection.
- Scar abnormalities are uncommon in this surgery. It is expected to have a fine scar on the upper eyelid crease that is almost imperceptible when eyes are open. Inappropriate positioning of the incision, tension, and intensive thermal damage can result in hypertrophic scarring [2].
- Small cysts along the suture line are also likely to appear and may occur because of microscopic epithelial remnants. These cysts may be easily resected with an 18 gauge needle [3] (Fig. 106.12).

Fig. 106.12 Cysts along the suture line

- Wound dehiscence may occur because of inadvertent trauma and early suture removal. Patients must be reminded not to rub their eyes and avoid intense exercises until 3 to 4 weeks after surgery [4].
- Wound infection is uncommon after blepharoplasty because of the extensive vascularization of the periorbital region [5]. However, there is no standard of care for or against antibiotic prophylaxis, and routine practices vary widely [6]. In the present study, antibiotic prophylaxis is used as a routine.

Tip Box

- The eyes are an important aesthetic unit where age-related changes are early perceived.
- Upper blepharoplasty is one of the most successful operations in facial plastic surgery.
- For select patients, blepharoplasty can be an ambulatory surgery, using only local anesthesia, with a quick recovery and significant benefits relating to the patient's rejuvenation.

References

1. Hass AN, Penne RB, Stefanyszyn MA, Flanagan JC. Incidence of postblepharoplasty orbital hemorrhage and associated visual loss. Ophthal Plast Reconstr Surg. 2004;20:426–43.
2. Klapper ST, Patrinely JR. Management of cosmetic eyelid surgery complications. Semin Plast Surg. 2007;21(1):80–93.
3. O'Doherty M, Joshi N. The "bespoke" upper eyelid blepharoplasty and brow rejuvenation. Facial Plast Surg. 2013;29:264–72.
4. Widgerow AD. Upper blepharoplasty with lateral segmental orbicularis excision. Ann Plast Surg. 2003;50:471–4.
5. Carter SR, Stewart JM, Khan J, et al. Infection after blepharoplasty with and without carbon dioxide laser resurfacing. Ophthalmology. 2003;110:1430–2.
6. Ferneini EM, Halepas S, Aronin SI. Antibiotic Prophylaxis in Blepharoplasty: Review of the Current Literature. J Oral Maxilofac Surg. 2017;75(7):1477–81.