UDC: 616.77-089.844
Professional paper

BLEPHAROPLASTY - OUR EXPERIENCE

Andrijana GJORGJESKA, Ermira HAMZAI, Gjorgje GJOKIQ, Elizabeta MIOVSKA

University Clinic for Plastic and Reconstructive Surgery
Ss. Cyril and MethodiusUniversity in Skopje, Faculty of Medicine in Skopje, Republic of North Macedonia

Abstract

Introduction
Blepharoplasty is a surgical procedure to improve the appearance of the eyelids and may involve removing excess skin, muscle and fat. With the aging process, the eyelids stretch and the muscles that support them weaken, therefore, excess of fat may gather above and below the eyelids, causing saggy eyebrows, droopy upper lids and bags under the eyes. As a result of this, the person looks tired and older.
Material and methods
At the University Clinic for plastic and reconstructive surgery, we performed surgical procedures on 45 patients (34 females and 11 males), in the past three years. Upper blepharoplasty was done on 41 patients, and only 4 patients went for blepharoplasty on both, upper and lower, eyelids. The surgical procedure was conducted under local anesthesia. We removed the excess of the skin In the upper eyelids and a small part of adipose tissue in the inferior eyelids. The rest of the fat pedicle was transposed in the upper eyelid to create a fulfilled appearance. In order to lift the eye's outer corner and the middle third of the face, cantopexy was done as well.
Result
The results are best observed by comparing patient's photographs of the eye region taken before and after surgical procedure. We managed to get a mid-face elevation and rejuvenation of the lower eyelid-cheek complex.
Conclusion
As a minimal invasive surgical procedure, blepharoplasty is one of the best procedures to achieve rejuvenation and more youthful appearance in the upper half of the face.

Keywords: rejuvenation, eyelid, excess skin, blepharoplasty.

Definition and history of blepharoplasty

Blepharoplasty (In Greek, blepharon meaning eyelid and plassein - to form) is a surgical procedure that corrects the unwanted consequences of the aging process in the area of the eyelids such as defects, deformities and disfigurements of the eyelids. It can be performd on both upper and lower eyelid. By excision and removal, or repositioning of excess tissues, such as skin and adipose tissue, reinforcement of the corresponding muscles and tendons, the blepharoplasty procedure solves functional and cosmetic problems of the periorbit.
In the first century Aulus Cornelius Celsus in his book De Medicina described making an excision of excess skin to relax the eyelids. In 1818, Carl Ferdinand von Grafe invented the term blepharoplasty using it as a technique to repair deformities caused by eyelid cancer.
To date, it remains the most performed surgical procedure for rejuvenated appearance.

The aging process depending on genetics, constitution, lifestyle and life habits is manifested in each individual in a different way and in a different period of life. The first signs of loss of skin collagen are usually seen on the face. Aging process in the eye area manifests itself the fastest, and the first wrinkles from grimaces, facial expressions or laughter, appear after the age of 30.
As a consequence, excess skin appears in the area of the upper eyelid, and wrinkles deepen in the area of the lower eyelid. The fat pads present in the upper and lower lids gradually become noticeable under the skin due to muscle weakness. All this results with sad and tired look on the face.

Indications

- Functional indications
  1. Steatoblepharon (pseudoherniation of eyelid fat pads).
  2. Dermatochalasis (thin loose skin on the upper lid that presents a visual field problem).
  3. Blepharochalasis (recurrent attacks of edema on the upper eyelid resulting with skin thinning).
  4. Developmental eyelid anomaly (epiblepharon).
  5. Inflammation (Graves' ophthalmopathy).
  6. Trauma.
  7. Removing a mass or excision of a tumor.

- Aesthetic indications
  Usually patients that have problems with above-mentioned consequences of aging or patients that are genetically predisposed to have droopy eyelids

Preoperative preparation

Regular preoperative patient preparation is required, a detailed medical and ocular history evaluation as well as an ophthalmic examination.

- Ophthalmic examination:
  1. the condition of the cornea, sclera and conjunctiva
  2. measuring basic visual acuity with Snellen's chart
  3. assessment of tear production with Schirmer's test
  4. measuring the rate of visual field decay in glaucoma,

- Eyelids evaluation:

  1. position of lacrimal gland
  2. presence of epicanthal folds
  3. distance of eyelid crease
  4. presence of ptosis on upper eyelid

Layered anatomy of the upper and lower eyelids and periorbital area

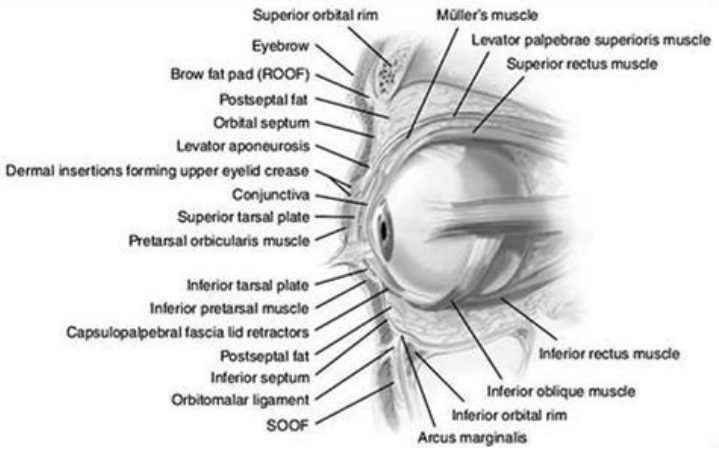

Figure 1. Layered anatomy of the upper and lower eyelids and periorbital area

Surgical Technique

- Upper eyelid blepharoplasty

In upper blepharoplasty, skin marking is done first. We mark the upper border of the skin excision usually using the pinch test to detect the amount of eyelid skin that can be safely removed and we mark the eyelid crease incision . The distance between the eyelid crease incision and the limbus of the upper eyelid should be 7-10 mm, and the distance between the medial point of upper border of the skin excision and nasal bridge should be 7-10 mm. Space between medial point of the upper border of the skin excision and the lower edge of the eyebrow should be 10-15 mm, and between the lateral canthus of the eye and the lateral end of the eyebrow should be 15- 18 mm. After removing the excess skin, the fat pads can be remodeled and redistributed for better result.
Before, surgeons had different opinions about removing the fat pads, but today, after numerous studies, it has been shown that the removal of the fat pads leads to a deepening of the eyelid crease and an even more tired appearance of the eye.

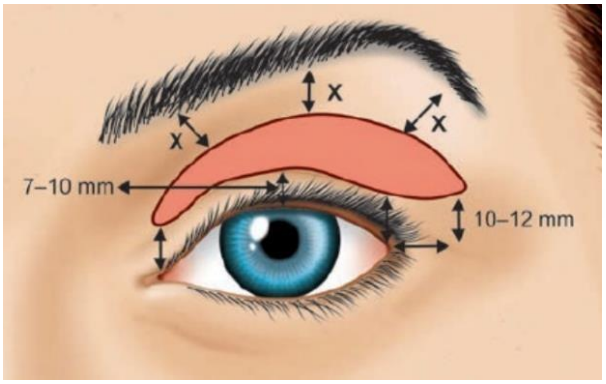

Figure 2. Skin markings

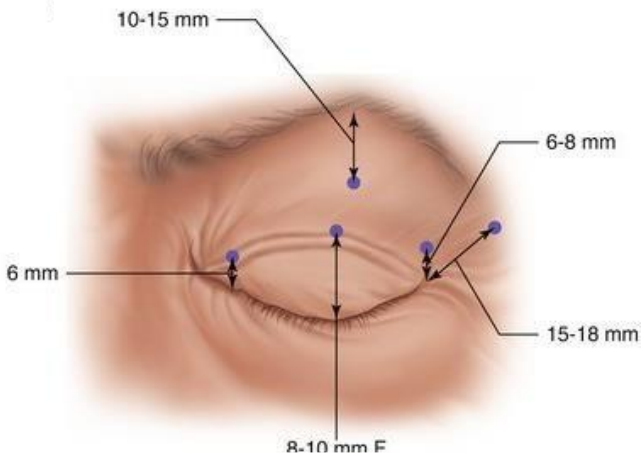

Figure 3. *Skin markings*

- Lower eyelid blepharoplasty, can be performed with skin approach (infraciliary, 1-2 mm below the lash line) or transconjunctival approach. The transconjunctival approach is performed in patients who have a problem exclusively with prolapse of the fat pads without the presence of excess skin.
- When the patient has an indication for both upper and lower blepharoplasty, it is recommended that they be performed in one act in order to maintain the symmetry of the eye.
- In most cases, blepharoplasty is performed under local anesthesia.

Postoperative care

Swelling and hematomas are expected, which normally subside in 5 to 7 days. In that direction, the patient is advised to rest for the next 2 days after the operation and apply ice packs in the eye area. Diplopia is common when upper and lower blepharoplasty are performed together, and it is expected to disappear by the end of the second day of surgery. Conjunctivitis may occur and usually resolves with irrigation of the eyes with saline solution
Sutures are removed 6-7 days after the intervention. After removing the sutures, intensive hydration and massage of the intervention site is recommended until normal lymphatic drainage is established, as well as avoiding direct exposure to the sunlight. It is recommended not to use eye make-up for at least 10 days after the intervention.
Final results are expected 3 months after the intervention.

Complications

Complications can be slight or serious

- Bruising and hematoma.
- Asymmetry
- Abnormal positioning of the eyelid which lead to logophtalmos or dry eyes syndrome.
- Abnormal scarring, pigmentation or scar hypertrophy.
- Blured vision
- Wound dehiscence
- Strabismus.
- Ptosis as a result of underevaluation or direct injury on levator palpebrae superioris.
- Orbital hemorrhage
- Loss of vision

Examples of upper blepharoplasty with suspension of the upper third of the face (the upper edge of m. zygomaticus minor is fixed to the periosteum to obtain the effect of middle face lift).

Figure 1. Before op.

Figure 2. Pinch test before op

Figure 3. Pinch test before op.

Figure 4. Day 1 post. op

Figure 5. Day 7 post. op.

Figure 6. 3 Weeks post. op

Figure 7. 3 Months post op.

Figure 8. Before op.

Figure 9. 7 Days post op.

Figure 10. 7 Days post op.

Figure 11. 7 Days post op.

Example of combined upper and lower blepharoplasty

Figure 1. Before op.

Figure 2. Pinch test before op.

Figure 3. 3 Days post op.

Figure 4. 3 Days post op.

Figure 5. 3 Months post op.

References

[1]. Seckel BR, Kovanda CJ, Cetrulo CL, Jr, Passmore AK, Meneses PG, White T. Laser blepharoplasty with transconjunctival orbicularis muscle/septum tightening and periocular skin resurfacing: A safe and advantageous technique. Plast Reconstr Surg. 2000;106:1127–41. 1142–5. [PubMed] [Google Scholar]

[2]. Castro E, Foster JA. Upper lid blepharoplasty. Facial Plast Surg. 1999;15:173–81. [PubMed] [Google Scholar]

[3]. Trussler AP, Rohrich RJ. Ble pharoplasty. Plast Reconstr Surg. 2008;121:1–10. [PubMed] [Google Scholar]

[4]. State of the Art in Blepharoplasty: From Surgery to the Avoidance of Complications. By Paraskevas Kontoes. 2017

[5]. American Society of Ophthalmic Plastic and Reconstructive

[6]. Surgery. (https://www.asoprs.org/index.php?option=com_content&view=article&id=89:eye-and-brow-lift&catid=20: site-content)

[7]. Excess Eyelid Skin (Dermatochalasis) and Droopy Brows (Eyelid BrowPtosis). (https://www.asoprs.org/index.php?option=com_content&view=article&id=89:eye-and-brow-lift&catid=20:site-content) (https:// www.asoprs.org/index.php?option=com_content&view=article&id=89:eye-and-brow-lift&catid=20:site-content) Accessed 8/7/2019.

[8]. Experiences and knowledge of surgeons from University Clinic for Plastic and Reconstructive Surgery, Ss. Cyril and Methodius University in Skopje