



From Classics To Individualization: Surgical Tactics In Age-Related Ptosis Of The Eyelids And Face

**Boymurodov Shukhrat
Abduzhalilovich**

Tashkent Medical Academy

**Yusupov Shokhrukh
Shukhratovich**

Tashkent Medical Academy

**Iminov Komilzhon
Odilzhonovich**

Tashkent Medical Academy

**Abdurakhmonov
Kakhramon
Abdukakhkhor ugli**

Tashkent Medical Academy

**Tukhtaboyev Boburzhon
Bakhodirzhon ugli**

Tashkent Medical Academy

ABSTRACT

This article presents the experience of surgical correction of age-related changes in the face and periorbital region, based on the analysis of 1,450 operations performed over a 10-year period at the multidisciplinary clinic of the Tashkent Medical Academy (TMA). Modern techniques of blepharoplasty and facelifting are considered, with an emphasis on the transition from standard methods to individualized tactics that take into account the anatomical and functional characteristics of each patient. Special attention is paid to working with deep soft tissue structures, rational repositioning, and fixation of anatomical units, which made it possible to increase the safety of interventions and the predictability of aesthetic results. It has been shown that an individualized approach and the justified combination of various surgical techniques help minimize complications, improve aesthetic and functional outcomes, and meet the current requirements of aesthetic medicine.

Keywords:

blepharoplasty, age-related ptosis, facelift, aesthetic surgery, individualized approach, soft tissues, TMA.

Introduction

Aesthetic surgery is becoming increasingly important in modern medicine, particularly in the context of correcting age-related changes in the facial and periorbital regions. With the increase in life expectancy and growing demands for quality of life and appearance, there is a rising need for safe and effective rejuvenation methods. Surgical correction of age-related ptosis of soft tissues, including various facelift techniques and blepharoplasty, occupies a central role among these interventions.

Age-related ptosis of the eyelids and facial soft tissues is a complex condition caused by decreased skin elasticity, redistribution of subcutaneous fat, and weakening of supporting structures such as the superficial musculoaponeurotic system (SMAS) and orbital ligaments. An imbalance between the static

and dynamic components of facial musculature leads to both functional and aesthetic disturbances, including narrowed visual fields, facial contour deformation, and the formation of nasolabial and nasojugal folds.

At the current stage, the development of facial aging surgery is characterized by a shift from superficial techniques to anatomically based interventions targeting deep structures. This approach requires not only a high level of surgical skill but also individualized tactics based on aging morphotype, anatomical features, and patient expectations.

A personalized approach that combines minimal invasiveness with maximal anatomical justification is becoming the leading strategy. This aligns with global trends in aesthetic surgery, aimed at ensuring long-lasting, predictable, and physiologically sound results.

The aim of this study was to analyze the evolution of surgical approaches to the treatment of age-related facial and eyelid ptosis, to justify principles of individualized tactics, and to evaluate the effectiveness of implemented methods based on clinical experience.

Materials and Methods

This retrospective study included data from 1,450 patients who underwent surgery at the multidisciplinary clinic of the Tashkent Medical Academy (TMA) from 2013 to 2023. Patient ages ranged from 32 to 67 years, with a mean age of 49.5 ± 8.1 years. All patients presented with complaints of age-related changes in the face and periorbital area, including soft tissue ptosis, formation of nasolabial and nasojugal folds, excess skin and fat in the upper and lower eyelids, and decreased skin elasticity.

The diagnostic algorithm included clinical examination, photographic documentation, and evaluation of skin elasticity, brow position, ptosis severity, mimetic wrinkles, and depth of nasolabial folds. Additional imaging studies such as soft tissue ultrasound and 3D photometric modeling were performed when necessary.

Surgical tactics were selected individually, considering the patient's aging morphotype, severity of changes, and anatomical features. Various surgical procedures were performed:

- Upper eyelid blepharoplasty (n = 525)
- Lower eyelid blepharoplasty (n = 425)
- Midface and neck lift (n = 395)
- Upper and midface lift (n = 63)
- Isolated upper face lift (n = 195)
- Neck liposuction (n = 155)

Surgical techniques ranged from classical to minimally invasive and included canthopexy, myopexy, orbital fascia reinforcement, platysmaplasty, SMAS mobilization and fixation, malar fat pad repositioning, and periosteal fixation. Surgeries were performed under general or local anesthesia depending on the extent of the intervention.

Patients were monitored postoperatively for a period ranging from 6 months to 3 years. The effectiveness and safety of the methods were evaluated according to the following criteria: patient satisfaction, objective photographic comparisons, complication rates, and duration of result retention.

Results

Analysis of the clinical material, which included 1,450 surgeries, demonstrated high effectiveness and an acceptable level of safety for the applied methods.

Blepharoplasty:

Out of the total interventions, 950 were related to eyelid correction (upper — 525 cases, lower — 425 cases). The majority of patients were women (87.3%), with a mean age of 50.2 ± 6.8 years.

A transconjunctival approach was used in 58% of lower blepharoplasty cases. Additional techniques included:

- Canthopexy — 42% of cases
- Myopexy — 28%
- Orbital fascia reinforcement — 35%

- Retrobulbar fat repositioning — 31%

Postoperative complications:

- Ectropion — 0.6%

- Persistent edema for more than 2 weeks — 1.4%

- Hematomas not requiring drainage — 1.1%

- Temporary hypoesthesia of the eyelid skin — 2.3%

The overall complication rate was 3.8%. All cases had favorable outcomes and did not require revision. The average patient satisfaction score after 6 months, based on the visual analog scale, was 4.6 ± 0.4 . Objective indicators (photometric analysis) showed improvement in the periorbital profile in 92.4% of patients.

Facelift and Neck Lift:

Among the 653 facial and neck procedures, midface and neck lift was most frequently performed (395 cases, 60.5%). Isolated upper face lift — 195 cases; Combined upper and midface lift — 63 cases. The average patient age was 51.7 ± 7.2 years; women accounted for 84%.

Applied surgical techniques:

- SMAS fixation — 81%

- Platysmaplasty — 56%

- Malar fat pad fixation — 68%

- Subperiosteal and supraperiosteal dissection — 73%

Additional procedures:

- Neck liposuction — 155 patients (in cases of pronounced adipose tissue)

- Fascia-fat autografts — 28% of cases (for prominent nasolabial folds)

Complications:

- Seroma — 1.5%

- Hematoma — 2.1%

- Transient paresis of facial nerve branches — 0.9% (all resolved within 3 weeks)

- Marginal skin flap ischemia — 0.6%

The overall complication rate was 5.1%. None of the cases required emergency reoperation.

Objective improvement in facial contours, elimination of gravitational ptosis, and restoration of a youthful facial outline were observed in 89.6% of patients. The average satisfaction score at 6 months was 4.5 ± 0.5 . In 92% of patients, the effect lasted for one year, and in 74% — for two or more years.

Discussion

The obtained results confirm the high clinical effectiveness and safety of modern surgical methods for correcting age-related changes in the face and eyelids when individualized tactics are applied. The use of various blepharoplasty techniques, including the transconjunctival approach, combined with canthopexy, myopexy, and retrobulbar fat repositioning, enabled sustainable aesthetic results with a minimal complication rate (3.8%).

The choice of surgical tactics was based on a comprehensive preoperative assessment of the aging morphotype, anatomical features of the tissues, and patient expectations. This corresponds to global trends that emphasize personalized treatment protocols with the least possible trauma.

Special importance is given to techniques that target deep facial structures—SMAS, platysma, and fat compartments. Performing dissections in the subperiosteal and supraperiosteal layers, with fixation to stable anatomical landmarks, not only provides a pronounced and long-lasting lifting effect but also significantly reduces the likelihood of recurrent ptosis and postoperative asymmetry.

Objective improvements in facial and periorbital contours, as well as high subjective patient satisfaction, confirm the validity of rejecting standardized 'template' methods in favor of differentiated, anatomically and functionally justified interventions.

A crucial factor in evaluating efficacy is the durability of aesthetic results. According to our data, the effect persisted for more than 2 years in 74% of patients. These results are consistent with international

studies demonstrating long-term outcome stability when tissues are fixed to periosteal and aponeurotic structures.

The postoperative complication rate remained within acceptable limits in all analyzed groups and did not exceed 5.1%. Moreover, all adverse events were reversible and did not require additional surgical interventions, indicating the reliability of the chosen techniques.

Thus, the implementation of anatomically oriented, personalized approaches in the surgical treatment of age-related changes enables an effective combination of high efficiency, predictability, and safety. The transition from classical superficial techniques to rational manipulation of deep structures reflects the modern standard in aesthetic surgery.

Conclusions

An individualized approach to the surgical correction of age-related ptosis of the eyelids and face, based on thorough preoperative assessment of the aging morphotype and anatomical features of the patient, ensures high clinical effectiveness and predictability of outcomes.

The use of anatomically oriented techniques targeting deep structures (SMAS, platysma, malar fat pad), along with fixation to stable osseous and aponeurotic points, promotes long-lasting aesthetic results and reduces the incidence of complications.

Combining gentle and more extensive techniques depending on the clinical context allows for minimization of postoperative risks, including injury to facial nerve branches, hematomas, seromas, and soft tissue asymmetry.

Statistical analysis of the results showed that the average patient satisfaction score exceeded 4.5 out of 5, and the stable aesthetic effect persisted for more than 2 years in 74% of patients, confirming the effectiveness of the proposed intervention algorithm.

Thus, modern methods for correcting age-related changes in the face and eyelids, when applied rationally and individually, comply with the principles of evidence-based aesthetic medicine and may serve as a reliable foundation for standardizing surgical protocols in clinical practice.

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