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INCORRECT SURGICAL TACTICS IN BLEPHAROPTOSIS: CONSEQUENCES AND COMPLICATIONS

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ABSTRACT

The correction of upper eyelid ptosis is one of the most common surgeries performed by oculoplastic surgeons, and recently by plastic surgeons as well. However, even the most experienced specialists note that the results are not always satisfactory. Successful outcomes are primarily achieved when performing levator aponeurosis surgery, with various authors reporting success rates between 70% and 95%. Among patients seeking consultation at the oculoplastic surgery department of the Republican Clinical Ophthalmology Hospital (RCOH) of the Ministry of Health of the Republic of Uzbekistan, upper eyelid ptosis accounts for 18-22% of cases in various years[5,6].

Key words: Hypereffect, RCOH, upper eyelid ptosis, artificial tear.

INTRODUCTION

Relevance. The correction of upper eyelid ptosis is one of the most common surgeries performed by oculoplastic surgeons, and recently by plastic surgeons as well. However, even the most experienced specialists note that the results are not always satisfactory. Successful outcomes are primarily achieved when performing levator aponeurosis surgery, with various authors reporting success rates between 70% and 95%. Reoperations on the levator occur in 18% to 20% of cases, and on Müller's muscle in up to 3%[1,2].

Complications arising from surgical correction of upper eyelid ptosis have been noted by various authors: hyper- or hypokorrection, conjunctival prolapse, eyelid inversion and eversion, contour deformity of the eyelids, displacement or

absence of the upper eyelid fold, infectious complications, lagophthalmos, and corneal pathology (keratopathy, erosion, corneal ulcer)[3].

The key to reducing complications during correction is the correct choice of surgical tactics. However, in recent years, there has been an increase in the number of complications following repeated unjustified surgical interventions for the treatment of upper eyelid ptosis[4].

Among patients seeking consultation at the oculoplastic surgery department of the Republican Clinical Ophthalmology Hospital (RCOH) of the Ministry of Health of the Republic of Uzbekistan, upper eyelid ptosis accounts for 18-22% of cases in various years[5,6]. Since surgical correction is the primary treatment method, we have frequently encountered various complications following previously performed surgeries in different medical institutions[7].

Given that there is a practical lack of data in domestic literature regarding the analysis of complications in ptosis surgery, we consider it reasonable to analyze the complications arising from incorrect surgical treatment tactics for upper eyelid ptosis.

The aim of this study was to analyze the complications that developed due to incorrect surgical tactics in the treatment of upper eyelid ptosis.

Materials and Methods. The results of the clinical study were based on the analysis of data from the last 5 years. From 2014 to 2024, 286 patients with upper eyelid ptosis were operated on at the oculoplastic surgery department of RCOH. The patients were divided into two groups: the first group consisted of 97 patients who had previously undergone surgery in various medical institutions without effect and with various ophthalmological complications. Ages ranged from 3 to 48 years, with 67% being children aged 3 to 18 years and 33% being adults. Most patients had undergone surgery up to four times and, in most cases, did not have discharge summaries detailing the procedures performed.

All patients underwent surgical treatment, which included revision and excision of the postoperative scar and removal of inadequate suspensions. In cases of corneal pathology, blepharoraphy was performed, and amniotic membrane coverage was applied when indicated. In cases of purulent-inflammatory complications, drainage was performed after the infiltration was opened.

Postoperative treatment was conducted according to standard protocols, with anti-inflammatory, antibacterial, and reparative therapy administered both systemically and locally. All patients were prescribed artificial tear preparations. The average hospital stay was 18±0.2 days, with a maximum follow-up period of 2 years.

Results.

The analysis of clinical material revealed the following errors in the choice of surgical tactics for upper eyelid ptosis:

- In 37 (40%) patients, a hypoeffect was identified, which was corrected by resection of the levator. Intraoperatively, scarring of the eyelid skin and orbicularis muscle was noted; however, in 23 cases, the tarsal-orbital fascia was intact.

- Hypereffect after levator resection was observed in 6 patients, with postoperative lagophthalmos noted in 5 of them, which complicated with corneal ulceration. The lagophthalmos was complete, with the palpebral fissure measuring between 7 to 9 mm, and upper eyelid function was absent. All patients underwent excision of postoperative scars; 3 patients underwent blepharoraphy, and 2 patients received amniotic membrane coverage for the cornea. All patients were able to preserve visual functions.

- In 19 patients, inadequate suspensions were found during revision; 12 patients exhibited conjunctival prolapse of the upper eyelid, while the others had "inadequate" suspensions that hindered normal function. In 26 patients, the second fixation point on the frontal muscle was located at the outer third of the eyebrow, leading to hypoeffect.

Continuation of results and discussion

- In five cases, some suspensions were rigidly fixed to the periosteum, leading to upper eyelid deformation. In one case, there was upper eyelid inversion, which resulted in keratopathy and corneal erosion. In this group of patients, the scars were separated, inadequate suspensions were excised, and the upper eyelid was suspended to the frontal muscle using strips of mersiline mesh.

- During the first week post-operation, 9 patients presented with complaints of pain, swelling, and redness at the surgical site. All patients with upper eyelid abscesses underwent drainage of the infiltrate, and local and systemic antibacterial and anti-inflammatory therapy was administered.

- In one case, a patient presented on the 5th day post-operation with severe pain and loss of vision in the operated eye. Examination revealed a penetrating scleral wound 3 mm above the limbus at the 12 o'clock position. The patient was hospitalized with a diagnosis of penetrating ocular injury and endophthalmitis. Delayed primary surgical treatment of the penetrating eye injury was performed, followed by anti-inflammatory and antibacterial therapy.

After surgical treatment performed in the oculoplastic surgery department of RCOH, all cases showed improvement. In all cases, the upper eyelid edge was at the upper margin of the pupil, with lagophthalmos ranging from 1-3 mm. Postoperatively, upper eyelid mobility was satisfactory (7 mm), with

lagophthalmos between 2-3 mm. In all cases, the eyelash margin was at the upper boundary of the pupil, and the upper eyelid folds were well-defined and symmetrical. Upon examination after 2 years, a prolonged satisfactory effect was maintained.

Discussion. Based on the above, we believe that postoperative complications are related to incorrect surgical treatment tactics. It is crucial to note that surgical treatment of blepharoptosis requires a pathogenetically oriented approach. Furthermore, the ophthalmological complications on the eyeball following blepharoptosis surgery underscore the necessity of performing this operation by oculoplastic surgeons in an ophthalmological hospital, as all ophthalmological complications arose from surgeries performed by plastic surgeons.

Conclusion. The analysis of clinical material indicates incorrect tactics chosen by surgeons. It is essential to emphasize that the surgical treatment and diagnosis of blepharoptosis require a differentiated approach by highly qualified ophthalmologists, considering the etiology and severity. The correct choice of surgical treatment tactics is fundamental, as noncompliance with these rules leads to undesirable consequences and complications. Additionally, every unsuccessful surgery adds further trauma, increasing scar deformation.

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