

Eyelid Notch Procedure for Severe Myogenic Ptosis: A Case Report

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ABSTRACT

A case of paralytic eyelid ptosis without frontalis muscle action is reported, due to two prior unsuccessful remedial procedures, an innovative technique is performed.

Keywords

Myogenic ptosis, Ptosis surgery, Ophthalmoplegia, Eyelid coloboma.

Introduction

Myogenic ptosis with poor levator function, 5 mm or less, is an infrequent cause of eyelid drooping and one of the most challenging to correct. The main neurological disorders associated with this condition are chronic progressive external ophthalmoplegia, myotonic dystrophy, and oculopharyngeal muscular dystrophy [1-3]. Different surgical techniques have been attempted to correct this impairment [4-6] of which the most acceptable is frontal muscle suspension with fascia lata or synthetic material [7-9]. Patients often request corrective surgery to improve appearance, but far more important is the uncovering of the pupil to improve vision.

Case Report

A 77-year-old female with systemic myotonic dystrophy was referred to our office. Two previous unsuccessful surgeries for her eyelid ptosis had been carried out. Apart from her muscular disorder, there were no other relevant comorbidities. The ophthalmic evaluation revealed severe drooping of both upper eyelids with complete pupil concealment (Figure 1). The patient stated that it was necessary to lift her eyelids with her fingers to be able to see. Visual acuity with the lid lifted was 20/70 in the right eye and 20/80 in the left. There was isocoria with normal pupil reflexes; complete ophthalmoplegia was evident; levator function was 2 mm on her right eye and null on her left with a 2-mm lagophthalmos and absence of blinking on this side. Bell's

phenomenon was limited. Corneal sensitivity tests were normal. Eye pressure and Schirmer test were normal. Dense cataracts were present in both eyes. Eye fundus exam disclosed no abnormalities. The patient's evident depression caused by her condition led the main author to propose a surgical coloboma on her upper eyelid. It was explained to the patient and accompanying family members that this was an innovative procedure and that the author had been unable to find anything comparable to the operation he was proposing in medical literature. Due to the uncertain outcome, the patient decided to have the surgery on her right eyelid first. She was also informed that in case of any post-op complication, the surgery could easily be reversed. Informed consent was obtained for the procedure, and the report adhered to the ethical principles outlined in the Declaration of Helsinki.

The operation was performed with local anesthesia under the surveillance of an anesthesiologist. A rhomboid notch design in front of the pupil was marked, its height of 6 mm was determined under mesopic illumination. A Bard Parker blade # 11 and iris scissors were used to remove the 3-mm wedge. Electrohemostasis was used in the denuded borders (Figure 2). Antibiotic ophthalmic ointment was applied and prescribed three times a day for six days; after that, daily eye lubrication was indicated. She was advised to occlude her eyes while sleeping as per the method established in our previously published guidelines [10]. Follow-up exams were carried out the following day, at three days, ten days and one month. At the nine-month check-up, the patient was able to see without physically having to lift the eyelid with her finger (Figure 3). No corneal damage was observed. She was encouraged to have cataract surgery.

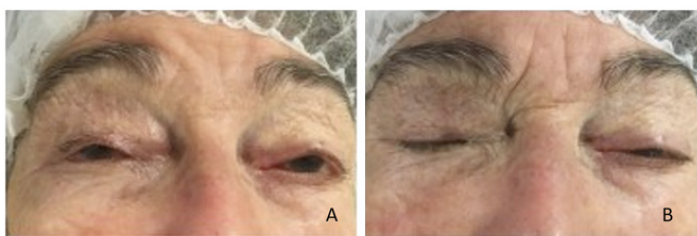


Figure 1: Preoperative. A. Eyelids open mainly due to frontalis synergia. B. Eyelids closed.



Figure 2: Intraoperative. A. Iris scissors B. Electrocoagulation of bloody borders to avoid sticking C. Immediate postoperative.

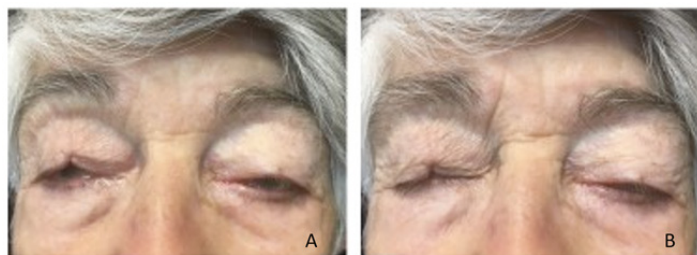


Figure 3: Postoperative at nine months. A. Eyelids open. B. Eyelids closed.

Discussion

This is an innovative surgical solution for certain myogenic ptosis patients whose foremost objective is to expose the pupil. It could be considered a surgical option if the traditional methods have been ruled out. A sine qua non condition is a normal cornea and lacrimal film. The technique is easy, quick and reversible and requires no downtime. If the notch is not large enough, it can be widened.

In the current case, due to her ophthalmoplegia, the patient had already become accustomed to rotating her head laterally to be able to see but in patients with normal ocular motility, this postoperative condition must be emphasized.

Conclusion

Surgical eyelid notch is an innovative solution for paralytic eyelid ptosis without frontalis muscle action. It is mandatory that selected cases have normal cornea and tear film.

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