Asian Blepharoplasty with concurrent Ptosis correction by Lpsplication : Our Experiences in Northeast India

ABSTRACT

Background: Asian Blepharoplasty is one of the most performed facial cosmetic procedures in northeastern india. undiagnosed ptosis often goes unnoticed in many asian blepharoplasty patients. To achieve proper symmetry, its essential to address ptosis simuntaneously during asian blepharoplasty. In this study , the author discuss ten cases of asian blepharoplasty in which simultaneous ptosis correction was performed by lps plication.

Keywords: Asian blepharoplasty, ptosis correction, lps plication

Introduction

Asian blepharoplasty, in which a supratarsal crease is formed, is commonly referred to as the "double-eyelid" procedure.[1]

A common mistake among Asians is to undergo blepharoplasty without first thoroughly assessing for eyelid ptosis. Consequently opting for double eyelid surgery without addressing the ptosis issue often results in less than desirable outcomes. Ptosis correction should be simultaneous with lid crease surgery to achieve proper symmetry, especially in unilateral ptosis.

The author hereby presents a full incisional double lid surgery with modified levator aponeurosis-muller muscle reinforced plication which creates a double fold and also corrects ptosis.

MATERIAL AND METHODS

Case series

We operated 10 patients operated between December 2021 to September 2023

Who presented to the Department of Ophthalmology, at Trihms Medical College &Hospital, Naharlagun, Arunachal Pradesh, India.

Inclusion criteria: Patients with mild to moderate ptosis with levator function ≥ 5mm, posted for Asian Blepharoplasty with concurrent ptosis (unilateral or bilateral)

written consent was taken from all patients. MRD1, MRD2, tarsal height,andlps action were noted. Patients were called for followup on day 10,1 month and 3 months.

PREOPERATIVE STAGE -The location of the desired eyelid crease is marked after showing them the mirror which is mostly 5-8 mm from the lid margin. The skin pinch method was used for marking both in sitting and supine positions.

Fig 1 blue arrow lps

White arrow tarsal plate

Horizontal mattress suture using 6-0 prolene passed through partial thickness tarsal humping levator and muller muscle


fig 2. temporary knot for lps plication

Painting and draping are done. Local anesthesia (2% lignocaine) was injected. Skin incision was made on the previous marking and any excess skin is removed depending upon the excess. A blunt tipped intrsument was used to dissect the space beneath the orbicularis oculi muscle. The muscle was incised and preseptal fat was identified. The orbital septum lying underneath was incised. The underlying white,shinylevator muscle was observed beneath the preaponeurotic fat.

Levator aponeurosis was exposed and distal fibers were disinserted from its insertion of tarsus leaving the anterior fibers intact along with mullers muscles. 3 double-armed 6-0 prolene suture is then placed at partial thickness through the anterior surface of the tarsus, at the midpoint of the pupil,at the medial limbus, and at 2mm from the lateral limbus.Thelevator tissue along with the muller muscle was humped and secured using a 6-0 prolene suture in a horizontal mattress suture

technique and temporary knot tied. Then, in supine position, the height and contour were inspected. After confirmation temporary knot is converted to permanent tie. Lid crease forming suture put through skin- orbicularis- levator - orbicularis -skin and skin closed with 6-0 vicryl suture at centre of pupil, medial limbus and 2mm from lateral limbus. Rest skin closed with 6-0 prolene.

Postoperatively all patients were examined for any complications on day 10, 1 month and 3 months

RESULTS

All of them were female. 4 patients had bilateral ptosis while 6 patients had unilateral ptosis. 6 cases were congenital and 4 involutional. Age group range were from 21-50 years .

8 patients achieved desired height and crease. Ptosis correction was assessed based on mrd1 value postoperatively which was 4 mm in 8 pateints.

The complications noted included:

Loss of eyelid fold and ptosis recurrence in 1 patient.

Undercorrection in 1 case

Temporal flare and assymtery in another case.

Fig 3 pre and postoperative left ptosis correction with bilateral asian blepharoplasty

Fig 4 pre and post operative bilateral asian blepharoplasty with bilateral ptosis correction

DISCUSSION

Among patients with Asian eyelids, double eyelid surgery is one of the most commonly sought-after cosmetic procedures.

When addressing blepharoptosis in Asian eyelids, some surgeons might consider removing excess skin in cases resembling pseudoptosis. However, it's important to note that a significant portion of Asian eyelid patients experience true ptosis.

The crucial aspect of a successful end result in blepharoptosis surgery rests on the proper selection of the appropriate surgical intervention.[2] In this aspect, the function of the levator muscle is reported as the single most important factor in selecting the correct type of procedure.[3]

Conventional levator aponeurosis plication involves opening of the orbital septum, pushing the orbital fat up, and folding the aponeurosis to the tarsus.[4]

Indeedlevator plication is linked with a significantly high recurrence rate.

The high recurrence rate after this surgery is attributable to the lack of strong and permanent adhesion formed by the smooth aponeurosis in the absence of wounds.[5,6]

In our approach posterior layer of levator aponeurosis along with the muller muscle muscle is advanced and reinforced into the tarsus. Plicating these layers together can harness the strength of the muller muscle, enhancing efficiency and reducing the likelihood of recurrence.

Many surgeons prefer to perform levator repair under local anesthesia; this offers the benefit of a monitored levator advancement, allowing the eyelid height to be adjusted during surgery with the voluntary cooperation of the patient. Additionally, the use of local anesthetic may affect levator muscle function, and the presence of epinephrine can lead to the contraction of Muller's muscle, potentially obscuring the true resting lid level. In our study, we didn't encounter this issue, as we administered no more than 1.5 cc of local anesthetic.(lignocaine 2% only). Hemostasis was obtained using radiofrequency cautery.

CONCLUSION

The levator aponeurosis-muller muscle reinforced plication proves to be a straightforward and efficient procedure for correcting mild to moderate ptosis in patients undergoing Asian blepharoplasty.

This study had some limitations such as the small sample size, limited follow-up time, and no satisfaction survey with questionnaires. Larger series or multicenter studies would be useful in the future.

REFERENCES

1.Sergile SL, Obata K. Mikamo’s Double-Eyelid Operation: The Advent of Japanese Aesthetic Surgery. Plastic and Reconstructive Surgery [Internet]. 1997; 99: 662–7.

2.Zoumalan CI, Lisman RD. Evaluation and mangement of unilateral ptosis and avoiding contralateral ptosis. Aesthet Surg J. 2010;30:320–8.

3.Padmaja Sudhakar QV. OmofolasadeKosoko-Lasaki, Millicent Palmer. Upper eyelid ptosis revisited. *Am J Clin Med* 2009;6:9.

4.Samuel M. Lam, Asian blepharoplasty, Operative Techniques in Otolaryngology (2007) 18, 267-272.

5.Finsterer J. Ptosis: causes, presentation, and management. AesthPlast Surg 2003; 27: 193-204.

6. Ahmad SM, Della Rocca RC. Blepharoptosis: Evaluation, techniques, and complications. Facial Plast Surg. 2007;23:203–15.

2.Gao MH, Xu X, Yu J, Yu H, Chen YX. Surgical management of blepharoptosis: A report of 500 cases. Zhonghua Zheng Xing Wai Ke Za Zhi. 2007;23:398–401.

3.de Figueiredo AR. Blepharoptosis. Semin Ophthalmol. 2010;25:39–51.

4. Kumar S, Kamal S, Kohli V. Levator plication versus resection in congenital ptosis: a prospective comparative study. *Orbit* 2010;29:29–34.

5. Anderson RL, Dixon RS. Aponeurotic ptosis surgery. *Arch Ophthalmol* 1979;97:1123–8.

6.Jordan DR, Anderson RL. The aponeurotic approach to congenital ptosis. *Ophthalmic Surg* 1990;21:237–44.