Case Report

Secondary Esotropia with Bilateral Pseudophakia and its Surgical Management: A Case Report

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ABSTRACT

Sensory strabismus is frequently associated secondary to congenital cataracts, either unilateral or bilateral. Surgical correction of sensory strabismus is indicated to improve binocular vision and for aesthetic reasons. In the present study, a patient with sensory esotropia secondary to congenital cataract, operated previously for cataract elsewhere; presented with gross diminution of vision in the left eye due to dislocated intraocular lens into the anterior chamber. The patient was treated surgically first with membranectomy and pupilloplasty in the affected eye, followed by consecutive strabismus correction surgery to obtain satisfactory results.

Keywords: Congenital cataract, Membranectomy, Myomectomy, Pupilloplasty, Sensory strabismus, Tenotomy

INTRODUCTION

Sensory strabismus is a pathology frequently associated with congenital cataracts, either unilateral or bilateral. According to some authors, the frequency of strabismus prior to cataract surgery is 40%, increasing to 71% after extraction. Esotropia is associated to congenital cataracts, in 83% cases, and exotropia represents a higher incidence in acquired cataracts, with 69% cases.[1] More frequent strabismus has also been observed in unilateral cataracts than in bilateral ones. Implantation of an intraocular lens (IOL) reduces the occurrence of sensory strabismus. Surgical correction of sensory strabismus is indicated to improve binocular vision and for aesthetic reasons. The most appropriate time to perform surgery for strabismus secondary to congenital cataracts is a controversial topic; whereas some authors propose delaying the operation until the angle of deviation is stabilized, and visual rehabilitation is completed, others prefer early surgery to reduce the time of treatment with occlusions.[2]

CASE REPORT

The case we present here is about a 6-year-old boy who presented with inward turning and gross diminution of vision in the left eye since 1 year. He was operated 1 year back elsewhere for bilateral congenital cataract. His visual acuity was 6/60 in the right eye and left eye visual acuity was counting finger 1 m, not improving with pinhole. On detailed examination, it revealed posterior chamber IOL (PCIOL) dislocated into the anterior chamber (AC), with cortex in AC in the left eye. The direct cover test revealed marked esotropia with Hirschberg test showing an angle of 45° inward deviation. Extraocular movements showed restriction of the lateral rectus muscle, along with inferior oblique overaction in the left eye. The child also presented with secondary sensory nystagmus. Fundoscopic examination and ultrasound biomicroscopy of the posterior segment revealed no significant abnormality.

The patient was taken up for surgical correction under general anesthesia in two sittings. The displaced PCIOL was corrected with membranectomy and pupilloplasty in the affected eye, followed by AC wash to remove the retained cortex. Three weeks later it was followed by a consecutive strabismus correction surgery of the affected eye again under general anesthesia. Forced duction test pre-operatively showed restriction in abduction (Figure 1). On exposure, the conjunctiva and Tenon's capsule on the medial side of the left eye appeared thickened and fibrosed. The fleshy and thickened tendon of the medial

Figure 1: Pre-operative

Figure 2: Post-operative

rectus muscle showed an anomaly of insertion, being only 3 mm away from the limbus. A medial rectus tenotomy and tenectomy was performed along with a myometomy of the inferior oblique muscle to achieve correction.

Post-operatively, the squinting eye showed marked improvement in alignment and visual improvement of counting finger 4 m (Figure 2).

DISCUSSION

The association of congenital cataracts with sensory strabismus is presented very frequently with a prevalence of 72.4%.[3,4] Thus, it is important to identify these patients and subject to surgical correction in early life. The outcome of surgery depends on the timing of surgery. Cataract surgery should be performed when patients are younger than 17 weeks to ensure minimal or no visual deprivation. Most ophthalmologists opt for surgery much earlier, ideally when patients are younger than 2 months, to prevent the irreversible amblyopia and sensory nystagmus in the case of bilateral congenital cataracts.[5,6] The delay in surgery is because of glaucoma. Since glaucoma occurs in 10% of congenital cataract surgery, many surgeons delay the cataract surgery. Consecutively, the best time to treat strabismus may be early, as soon as it is diagnosed according to the preference of some authors, or later, after completing visual rehabilitation.[7,8]

CONCLUSION

Hence, it can be concluded that the aim of treatment is not only to achieve cosmetic improvement, but also improvement in the visual acuity with the restoration of binocular single vision.

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