

Traumatic Pseudophacocele and Total Iris Avulsion

Travmatik Psödo fakosel ve Total İris Avulsiyonu

Ertuğrul CAN¹, Tuğba TAFLAN²

ABSTRACT

We report a case with traumatic subconjunctival dislocation of posterior chamber intraocular lens (PC IOL) and total iris avulsion. Dislocated lens and avulsed iris was extracted and the wound explored and repaired. After stabilization of the eye, secondary vitrectomy and transscleral fixation of PC IOL were performed, achieving a final visual acuity of 6/30. The case described herein is a rare condition that must be treated immediately due to the risks such as endophthalmitis, retinal detachment, choroidal detachment, corneal decompensation and etc.

Key Words: Pseudophacocele, trauma, scleral fixation.

ÖZ

Bu çalışmada arka kamara göz içi lensinin (AKGİL) ve irisin travma sonucu konjonktiva altına yer değiştirdiği olgu sunulmaktadır. Konjonktiva altındaki lens ve iris çıkarılarak yara yeri tamir edildi. Göz stabilize olduktan sonra sekonder ön vitrektomi ve AKGİL'in sklraya fiksasyonu gerçekleştirildi. Hastanın nihai görmesi 6/30 seviyesindeydi. Söz konusu durum çok nadir görülmektedir ve endoftalmi, retina dekolmanı, koroid dekolmanı, kornea yetmezliği gibi çeşitli komplikasyonlara sebep olabileceğinden dolayı acilen tedavi edilmesi gerekmektedir.

Anahtar Kelimeler: Psödo fakosel, travma, skelral fiksasyon.

INTRODUCTION

Moving of intraocular lens (IOL) into the subconjunctival or subtenon area after a blunt ocular trauma is named as pseudophacocele.¹ This rare complication following cataract surgery is an important condition due to the risk of the endophthalmitis.^{2,3} Subconjunctival dislocation of a posterior chamber intraocular lens was reported a few times before but to our knowledge, this is the first case of traumatic pseudophacocele accompanied by a totally avulsed iris. We report a case with subconjunctival IOL dislocation and total iris avulsion managed by removal of dislocated lens and avulsed iris, anterior vitrectomy and transscleral fixation of posterior chamber intraocular lens (PC IOL).

1- M.D. Asistant Professor, Ondokuzmayıs University Faculty of Medicine, Department of Ophthalmology, Samsun/TURKEY
CAN E., canertugrul73@hotmail.com

2- M.D. Asistant, Ondokuzmayıs University Faculty of Medicine, Department of Ophthalmology, Samsun/TURKEY
TAFLAN T., tugba_tafilan@hotmail.com

Geliş Tarihi - Received: 18.09.2012

Kabul Tarihi - Accepted: 06.11.2012

Glo-Kat 2013;8:69-71

Yazışma Adresi / Correspondence Adress: M.D. Asistant Professor,
Ertuğrul CAN
Ondokuzmayıs University Faculty of Medicine, Department of
Ophthalmology, Samsun/TURKEY

Phone: +90 362 312 19 19

E-Mail: canertugrul73@hotmail.com



Figure 1: Dense hemorrhage and partial vitreous in the anterior chamber and superior temporal subconjunctival IOL was revealed.

CASE REPORT

An 80 years-old female patient complaining of sudden vision loss, redness and pain was referred to our clinic after an accidental left eye trauma which occurred 2 days earlier.

On external eye examination, visual acuity in her left eye was hand movement, eye was hypotonic by digital palpation, and eyelid was swollen and ecchymotic. There were excessive hemorrhage on the superior subconjunctival space and moderate hemorrhage on the other quadrants of the conjunctiva. Orbital ultrasound showed vitreous hemorrhage. On slit-lamp examination, an intraocular lens was seen into the superior subconjunctival space extending to the superior fornix. Behind the intraocular lens, there was also a small iris bulk soaked with hemorrhage. Neither corneal perforation nor conjunctival laceration was seen. Mild corneal edema was present. Dense hemorrhage and vitreous in the anterior chamber averted to see the details (Figure 1).



Figure 3: The eye was fitted with a colored contact lens because the patient refused artificial iris implantation.

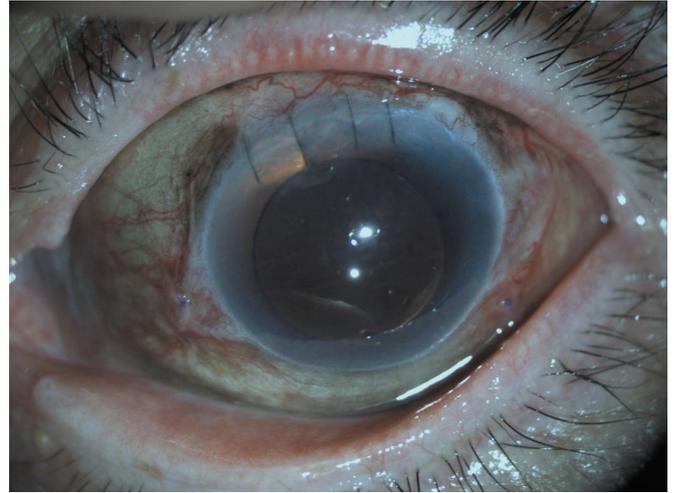


Figure 2: Secondary scleral fixation IOL implantation after core vitrectomy. IOL was centralized.

We planned eye exploration immediately to prevent the endophthalmitis. During the surgery, a scleral perforation line from 12 to 3 o'clock and total iris avulsion were seen. Total iris material and IOL was extracted. Subsequently the vitreous and hemorrhage was cleaned with anterior vitrectomy. The wound sutured with 8-0 vicryl and antibiotic was injected into the subconjunctival area.

The patient was followed-up for postoperative 7 days and discharged with topical corticosteroids and antibiotics augmented by systemic antibiotics. At that time, her visual acuity was hand movement, intraocular pressure was normal but there was intravitreal hemorrhage.

Two months later, core vitrectomy and secondary scleral fixation IOL implantation was performed (Figure 2). On the first postoperative day IOL was centralized and sutures were safe. Patient discharged with topical antibiotic and steroid drops.

One week later, the patient's best-corrected visual acuity was 6/60. Anterior segment examination was normal except total iris absence. Fundus examination revealed macular edema. The patient was satisfied with her visual acuity and refused additional treatment with artificial iris implantation. She also refused macular edema treatment. Her left eye was fitted with a colored contact lens and visual acuity increased to 6/30 (Figure 3).

DISCUSSION

An intraocular lens can move to subconjunctival or suprachoroidal space. It can also drop into the vitreous cavity or get out of the eye as a result of blunt trauma. Traumatic pseudophacocele has been described previously.¹⁻⁴

To our knowledge, subconjunctival dislocation of a posterior chamber intraocular lens with total iris avulsion has not been reported.

Stroke usually comes from temporal quadrant and the energy tends to project to superior, posterior and nasal area. So, ocular ruptures more often occur in the superior and nasal quadrant.⁵ The rupture in our case was in superior but temporal area. During the blunt trauma, anteroposterior compression of the globe results in expansion of the equator and corneal wound dehiscence. Rupture usually occurs in perilimbal area and is concentric to the limbus, where tense and deep scleral fibers are transformed into a delicate lamella of pectineous ligament.⁶ In opposition to the sutured corneoscleral wound, conjunctival elasticity can spare the conjunctiva. This condition causes the expulsion of the IOL as well as total iris into the subconjunctival space.

Pseudophacocele is more likely to occur after extracapsular cataract extraction compared to phacoemulsification for the wideness of the wound length. Also postoperative steroid drops present a wound constriction challenge to the ophthalmologist. Besides, globe weakening diseases like rheumatoid arthritis, scleritis and connective tissue diseases can be a reason for pseudophacocele with a blunt trauma.⁷

In our patient, we achieved a final visual acuity of 6/30. There was a cystoids macula in her left eye that prevents better visual outcomes. This condition would be the result of both accidental and surgical traumas. Vitreous loss and total iris loss were also contributing factors to poor visual outcome.

Even so, 6/30 is relatively a good result after those trauma and surgeries. Although we offered intravitreal injection and artificial iris implantation to increase visual acuity, the patient refused additional treatment. So, we fitted her left eye with a colored contact lens.

In such cases, regular follow up is required for the occurrence of retinal detachment or corneal decompensation both of which would be the late complication related to the surgery or initial trauma.

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