



A traumatic phacocoele after blunt trauma: A case report

Hümeyra Yıldırım Can¹, Mine Kuru², Eyüp Karahan³,

¹ Assist. Prof., Balıkesir University Faculty of Medicine, Department of Ophthalmology, Balıkesir, Turkey.

² Res. Assist., Balıkesir University Faculty of Medicine, Department of Ophthalmology, Balıkesir, Turkey.

³ Assoc. Prof., Balıkesir University Faculty of Medicine, Department of Ophthalmology, Balıkesir, Turkey.

ABSTRACT

In this article, we aimed to present a case of traumatic phacocoele after blunt trauma. A 49-year-old female patient was admitted to our outpatient clinic due to pain, loss of vision and bleeding in the left eye due to a cow hit. In the ophthalmological examination, vision was light positive in the left eye. Intraocular pressure was digitally hypotonic. Bio-microscopic examination revealed intense subconjunctival hemorrhage and edema in the superior quadrant, and hyphema in the anterior chamber. Fundus could not be detected. The operation was performed under general anesthesia due to the suspicion of a possible scleral perforation. It was observed that the crystalline lens prolapsed towards the subconjunctival area. Primary scleral repair and anterior chamber lavage were performed. Due to intense vitreous hemorrhage, vitrectomy and endolaser were performed two weeks later. A scleral fixation lens was applied to the patient 2 months later.

Keywords: blunt trauma; phacocoele; scleral rupture

INTRODUCTION

Phacocoele, which is the dislocation of the crystalline lens to the subconjunctival area after blunt trauma, is a rare complication.¹ A previous history of ocular surgery, the presence of diseases that may affect the scleral tissue such as rheumatoid arthritis and scleritis, decrease in tissue elasticity due to advancing age may be factors that facilitate scleral perforation.^{2, 3} Although it is rarely seen, the presence of swelling and hemorrhage in the subconjunctival region after blunt trauma and a careful biomicroscopic and ultrasonographic examination may support the diagnosis.

CASE REPORT

A 49-year-old female patient was admitted to our emergency outpatient clinic due to bleeding, blurred vision and pain in the left eye due to cow hit. In the examination made in the polyclinic; corrected good visual acuity right eye 10/10, left eye light perception p+. Intraocular pressure was 15 mmHg in the right eye and digital hypotony in the left eye. In the bio-microscopic examination, the anterior segment of the right eye was observed naturally. Bio-microscopic examination of the left eye revealed intense subconjunctival hemorrhage and edema throughout the superior quadrant, and intense hyphema

in the anterior chamber. Computed tomography revealed lens dislocation and appearance compatible with globe perforation (Figure 1). The conjunctiva was dissected 180 degrees superiorly under

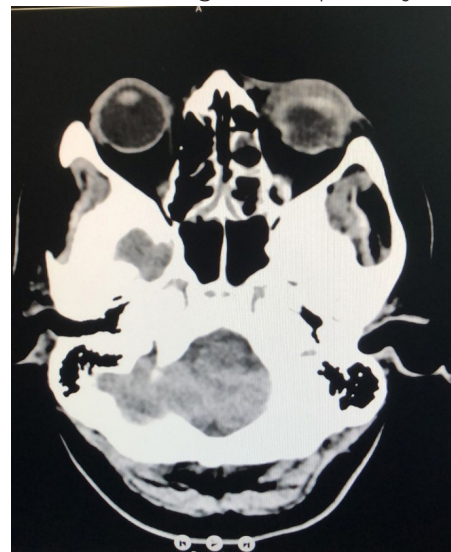


Figure 1: CT image of the left eye

general anesthesia. In the operation, it was observed that the crystalline lens prolapsed from the scleral perforation area to the subconjunctival area in the superior quadrant (Figure 2). Lens tissue was removed from the wound site. It was observed that the perforation line

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Correspondence Author: Hümeyra YILDIRIM CAN, Assist. Prof., Balıkesir University Faculty of Medicine, Department of Ophthalmology, Balıkesir, Turkey. **E-mail:** balikesirhumeyra@gmail.com, **Phone:** +905305244841.

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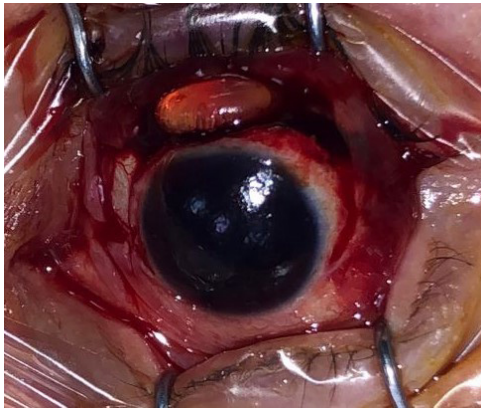


Figure 2: Dislocated crystalline lens in the superior quadrant

extended from approximately 2 mm above the limbus from 11 o'clock to under the lateral rectus. The lateral rectus muscle was separated from the insertion site and the entire scleral perforation area was sutured with 7/0 vicryl. After anterior chamber lavage, the conjunctiva was sutured with 8.0 Vicryl and closed. On the first postoperative day, visual acuity was P+ in the left eye, high intraocular pressure was detected by digital palpation (fingertip test), and total hyphema was observed via slit lamp examination. 300cc intravenous mannitol and anti-glaucomatous drops were added to the patient's treatment. On the 2nd postoperative day, it was observed that the hyphema started to dissolve. In the ultrasonographic examination, it was determined that there was hemorrhage in the vitreous. Two weeks after the trauma, vitrectomy, endo-laser photocoagulation and fluid air exchange were applied to the patient due to vitreous hemorrhage. On the postoperative first day of the second operation, visual acuity was at the level of hand movement, slit-lamp examination of 10 mmHg intraocular pressure revealed that the cornea was transparent and the anterior chamber was formed. In the follow-up examination 1 month later, there were corrected visual acuity of 0.3, intraocular pressure of 10 mmHg, bio-microscopic examination revealed that the clear cornea, and fixed dilated pupil. In the fundus examination, it was noted that the retina was attached and there was no hemorrhage. One month later, a scleral fixation lens was applied to the patient. Informed consent was obtained from the patient that medical data could be published for this case.

DISCUSSION

Perforation cases that occur as a result of ocular trauma are among the emergencies of ophthalmology and are a condition that must be managed quickly and carefully. Presence of intense subconjunctival hemorrhage and hypotonia should suggest an occult perforation.⁴ Although traumatic phacocoele is rare, the diagnosis of patients can be made by b-scan

Ultrasonography, Anterior segment OCT, Computed Tomography, Ultrasound Biomicroscopy with bio-microscopic examination.⁵ However, as in our case, the inability to distinguish anterior chamber details due to the presence of hyphema and intense subconjunctival hemorrhage made the diagnosis difficult. Vitreous hemorrhage and retinal detachments may accompany these cases.^{6,7} Although there are a limited number of cases reported in the literature, the most common location of the crystalline lens is the upper nasal quadrant near the limbus, the second most common location is the upper temporal quadrant.^{3,7} In the treatment, the wound should be explored as soon as possible and the lens should be removed from the tissue. Repair of scleral rupture and, if necessary, partial vitrectomy should be performed. IOL implantation can be left to a later session depending on the situation of the case.⁸ Rarely, traumatic phacocoele can be seen in blunt trauma cases. A careful anterior segment examination, accompanied by USG, Anterior Segment OCT, and Computed Tomography may be helpful in diagnosing traumatic phacocoele.

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