

CASE REPORT

TRAUMATIC PHACOCELE IN 55 YEARS OLD WOMAN FROM CHENNAI, INDIA

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ABSTRACT

A 55-years-old woman presented with profound sudden loss of vision in left eye (LE) after an injury in a road side accident. She had normal right eye. Left eye had perception of light (PL) with accurate projection of light (PR) in all quadrants, total hyphema, chemosis in supero-nasal conjunctiva and normal intraocular pressure (IOP). B-scan of LE showed extrusion of the lens into the supero-nasal subconjunctival space called phacocele, and vitreous hemorrhage. Wound exploration was done with removal of expelled lens and the scleral wound was sutured with 6/0 vicryl, followed by 25G pars plana vitrectomy with fluid gas exchange. Secondary IOL implantation is planned in next visit.

KEY WORDS: Visual Acuity; Hyphema; Conjunctiva; Vitreous Hemorrhage; Blunt Trauma; Ophthalmoscopy; Retina.

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INTRODUCTION

The eye behaves like an incompressible globe because of its liquid contents.¹ Blunt trauma to the globe has various manifestations, but presentation of phacocele is extremely rare. It results from scleral rupture. Thus, blunt trauma of adequate intensity may result in rupture of the eyeball either directly at the site of impact or indirectly in a remote area. This indirect rupture of sclera may lead to dislocation of the crystalline lens into the subconjunctival or sub-tenon's space.^{2,3} Supero-nasal quadrant of sclera is the weakest area, hence majority of the phacocele occur in this region.⁴

CASE REPORT

A 55-years-old woman presented with profound sudden loss of vision in left eye (LE). She gave history of fall from scooter and left eye being hurt by its footrest. On examination, Right eye (RE) was normal with best corrected visual acuity (BCVA) 20/20 and N.6 and LE had PL+ with accurate PR in all quadrants. Slit-Lamp Examination of RE was normal, while LE

had total hyphema with chemosis in supero-nasal conjunctiva. (Figure 1)

There was presence of ciliary body prolapse at the site of scleral rupture. Intraocular pressure (IOP) in both eyes was normal. Fundus view of RE was normal, while in LE, there was no view due to hyphema. B-scan of LE showed extrusion of the lens into the supero-nasal subconjunctival space called phacocele, along with vitreous hemorrhage. CT scan of both orbits should no obvious intra-ocular foreign body. Wound exploration was done with the removal of expelled lens. The scleral wound was then sutured with 6/0 vicryl, which was followed by 25G pars plana vitrectomy with fluid gas exchange. Secondary IOL implantation is planned in next visit.

On 1st post-op day, there was no view of fundus with IOP of 35 mm of Hg in LE. Patient was treated with combination of topical steroid with antibiotic, homatropine and anti-glaucoma drops. On 7th post-op day, disc was faintly seen on indirect ophthalmoscopy and the IOP was controlled. On 16th post-op day, fundus view was very clear with normal disc and macula, and attached retina. BCVA improved to 20/200, which further gradually improved to 20/40 and N.18 at one month follow up. At the end of six months, BCVA was 20/30 and N.6 with +9.00/+2.50x150° correction. Secondary IOL implantation is planned in next visit.

DISCUSSION

Ocular trauma is not an uncommon entity. It is associated with significant visual morbidity. Lens dislocation is not unusual here. It occurs usually into the vitreous cavity. Rarely due to indirect scleral rupture, the dislocation may be into the

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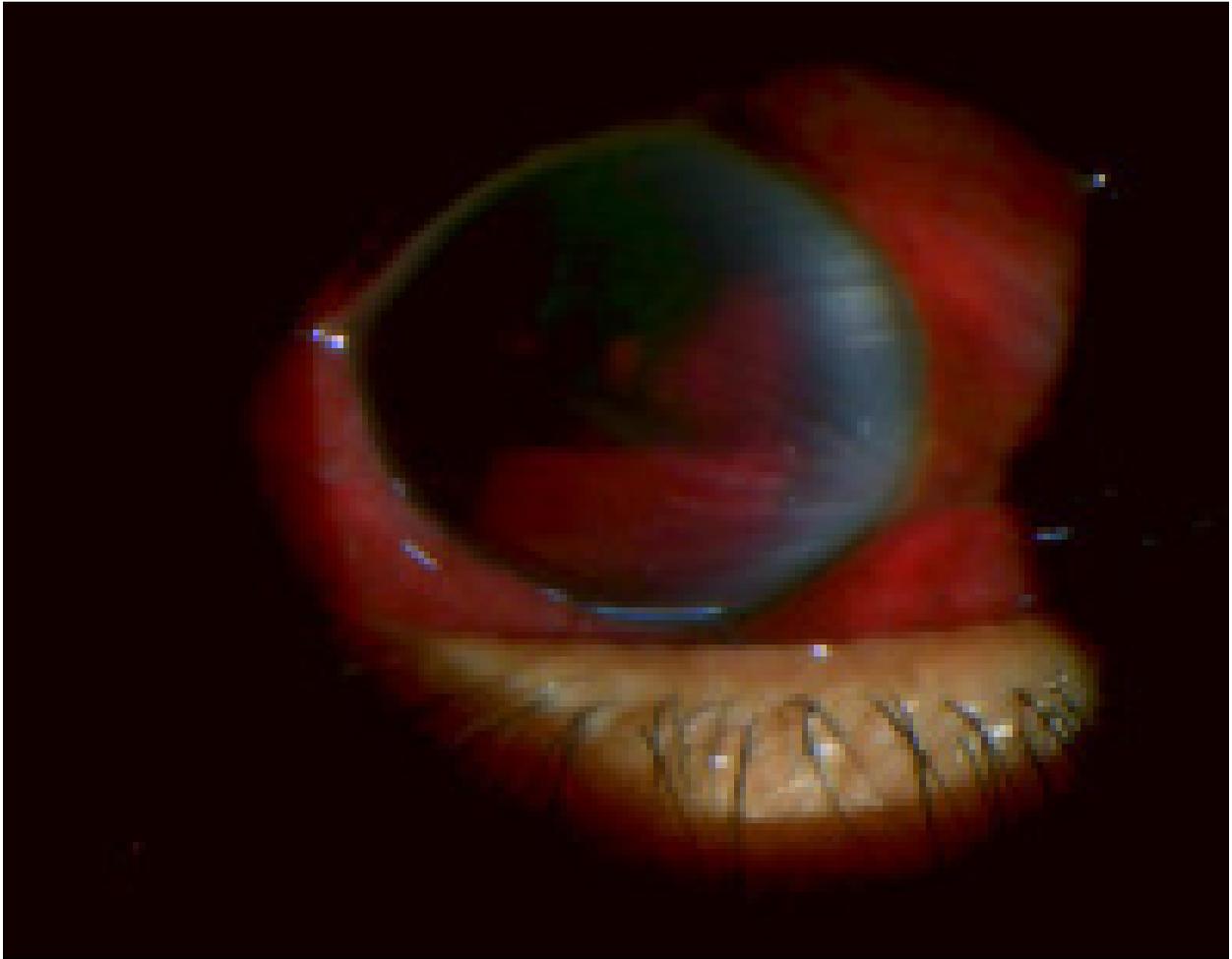


Figure 1: Total hyphema with chemosis in supero-nasal quadrant of conjunctiva in 55-years-old women presenting with traumatic phacocele in Chennai, India

subconjunctival or subtenon's space, known as phacocele. Phacocele is from Greek; 'phaco' meaning lens and 'kele' meaning herniate.⁴ Fejer⁵ was the first who published two cases of phacocele in 1928.

McDonald and Purnell⁶ presented a series of lens dislocations in 1951. These included 13% cases of phacocele. Sindal and Mourya⁷ from India in 2016 reported a case of 60 years aged man with posterior phacocele along with retinal detachment. He had a blunt trauma due to fall three days back, with no previous history of ocular injury or surgery.

Bhupally, et al.⁸ from Anand Rao Institute of Medical Sciences, Bommakal Village, Distt. Karimnagar, India from May 2013 to January 2015 noted only one (1.32%) case of phacocele out of 76 cases with ocular trauma. Chaniyara, et al.⁹ from New Delhi, India reported a case of phacocele in 48 years old man in 2017.

Allen, et al.⁴ reported a 42 years old patient with traumatic phacocele in 2001. He was a case of congenital glaucoma and bilateral goniotomies were performed

on him 40 years back. Now a blunt trauma resulted in phacocele, probably anticipated by previous ocular surgery as an infant.

Bhattacharjee, et al.² presented eight cases of traumatic phacocele in 2006 from Guwahati, Assam, India. Many causes included; fist injury in three cases, wooden piece in two cases, coconut leaf broom in one case, and metallic rod in two cases.

Yurdakul, et al.¹⁰ from Izmir Atatürk Education and Research Hospital, Department of Ophthalmology, Izmir, Turkey reviewed five cases of phacocele in 2003. The dislocations were; one each into the superior, temporal, superotemporal, and two into superonasal quadrant.

Goel¹¹ in 2018 reported a case of phacocele in a 65 years old lady. She was given periocular anesthesia in a camp, leading to visual loss and a mass in her right eye. This mass was explored and diagnosed to be a displaced subconjunctival crystalline lens, along with suspected scleral rupture, vitreous haemorrhage and retinal detachment.

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CONFLICT OF INTEREST

Authors declare no conflict of interest.

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AUTHORS' CONTRIBUTION

The following authors have made substantial contributions to the manuscript as under:

Conception or Design: DB, BC

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All the authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.



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