

## CASE REPORT

# Pseudophacocoele Following Blunt Ocular Trauma

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### SUMMARY

**Blunt ocular trauma may result in expulsion of the intraocular lens in a patient who has undergone cataract surgery. This case report describes a patient who presented with an extrusion of intraocular lens following blunt ocular trauma post-operatively. The authors emphasise the importance of patient counselling and protection of the operated eye after surgery.**

### KEY WORDS:

*Cataract, Pseudophacocoele, Trauma*

### INTRODUCTION

A pseudophacocoele is an extruded intraocular lens (IOL) through the cataract wound in the subconjunctival or subtenon space secondary to blunt ocular trauma<sup>1</sup>. It is a rare complication of blunt ocular trauma. It may occur in patients who have undergone extracapsular cataract extraction (ECCE) or intracapsular cataract extraction (ICCE) both of which require a large surgical wound<sup>1-4</sup>.

### MATERIALS AND METHODS

Interventional case report

### RESULTS

A 69-year old male with a preoperative Snellen visual acuity of 6/60 in his left eye secondary to cataract was planned for small incision phacoemulsification surgery with intraocular lens (IOL). He also had a preexisting central corneal endothelial opacity which obscured the intra-operative view. This had resulted in the conversion of the procedure to a larger incision ECCE. Otherwise, the surgery was uneventful. The IOL was placed in the capsular bag.

The patient's Snellen visual acuity in the left eye was 6/36 on review one week after the operation. The cataract wound was nicely opposed. There was no worsening of the central corneal endothelial opacity and the rest of the cornea was clear. There was no significant inflammation in the anterior chamber (AC). The retina and the macula were normal. He was scheduled to be reviewed again in 1 month for refraction.

However, he presented to the emergency department one week before the scheduled appointment date complaining of poor vision associated with pain, redness and tearing after the eye was accidentally hit by his son's elbow a few days earlier during gardening. The visual acuity in the left eye was only counting fingers. There was extensive subconjunctival

haemorrhage involving the superior quadrant of the eye. The cataract wound was nicely opposed but the pupil was drawn superiorly. (Figure 1) There was presence of vitreous in AC and the posterior capsule (PC) was absent. The eye was aphakic and soft. Funduscopy showed a normal fundus with no visible dislocated IOL. Detailed slitlamp examination revealed an IOL beneath the superior conjunctiva. (Figure 2)

An IOL exchange and anterior vitrectomy under local anaesthesia was performed on the left eye immediately to prevent endophthalmitis. Intra-operatively, the IOL was removed from the subconjunctival space. It had probably extruded through the large ECCE corneal wound during the trauma. The corneal wound appeared to be self-sealing. The PC was ruptured as evident from the presenting vitreous beneath the conjunctiva. An anterior chamber IOL (AC IOL) was implanted because of the absence of PC or anterior capsule rim support. The patient was able to achieve a best-corrected postoperative Snellen visual acuity of 6/24 in his left eye three weeks after undergoing the IOL exchange and anterior vitrectomy.

### DISCUSSION

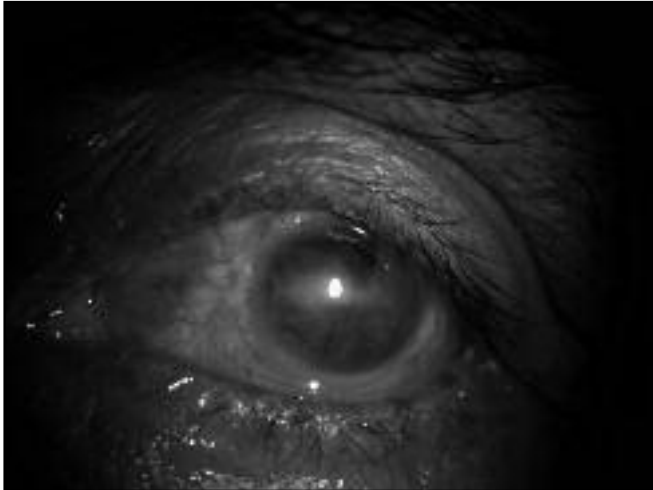
Subconjunctival extrusion of an IOL has been described previously<sup>1</sup>. It is due to direct blunt trauma to the operated eye occurring in the early post-operative period or as late as 5 years after cataract surgery<sup>1,2</sup>. All cases involved large wound cataract surgery with either posterior chamber IOL (PCIOL)<sup>2,3</sup>, ACIOL<sup>4</sup> or iris clip IOL<sup>1</sup>.

The presence of a large surgical wound increased the risk of extrusion of the IOL in this patient following blunt trauma. It is possible that anterior-posterior compression of the globe occurring during the blunt trauma resulted in equatorial expansion and corneal wound dehiscence sparing the higher elasticity conjunctival wound. This caused the expulsion of the IOL and vitreous into the subconjunctival space leading to ocular hypotony.

The patient's visual outcome was good due to the absence of other related complication of blunt ocular trauma. However, due to the extensive vitreous prolapse at presentation, surgery could still be complicated by vitreous incarceration in the wound leading to persistent inflammation and cystoid macula oedema post-operatively. Longer follow up is also required to look for the occurrence of rhegmatogenous retinal detachment (RRD) or corneal decompensation both of which may arise due to the late complication related to the surgery or the initial trauma.

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**Fig. 1:** Diffuse illumination slitlamp examination showing red left eye with superiorly updrawn pupil and central corneal opacity



**Fig. 2:** Subconjunctival IOL was revealed when patient was asked to look down during examination.

In all cases of blunt ocular trauma following cataract surgery, it is mandatory to examine all quadrants of the eye. Otherwise, the pseudophacocoele could have been missed as the expelled IOL was covered by the upper lid. (Figure 1 and 2) This is especially important if the patient also presented with periorbital or conjunctival haematoma with chemosis. In such cases, exploration under appropriate anaesthesia to search for the missing IOL must be performed.

Patient counselling regarding protection of eyeball during early period after surgery must be emphasized. This can be done either during the cataract surgery booking or during the pre-operative assessment prior to surgery. Patients should be advised to avoid activities which may predispose them to direct trauma to the eye.

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