Management of traumatic iris prolapse after uncomplicated cataract surgery

Mouchtouris Thomas[1], Platari Konstantina[2], Karagianni Anastasia[1], Alonistiotis Dimitrios[1], Vartsakis Georgios[2]

[1] *Ophthalmology Department, Sismanogleio-Amalia Fleming General Hospital, Athens, Greece*
[2] *Private practice, Athens, Greece*

Disclosure

No relevant conflicts of interest to declare.

Purpose : To describe the management of iris prolapse in a 75-year-old female patient who fell injuring her left eye, two months after uncomplicated cataract surgery. Iris prolapse is considered a surgical emergency and can lead to a range of complications including increased risk of infection, further injury to the iris or other intraocular structures and potential vision loss. Therefore, immediate measures should be taken to reposition the iris and close the wound to prevent further complications and preserve the eye's structural integrity and function.

Setting : The patient presented, seven days after injuring her left eye, referring foreign body sensation, tearing and pain. Visual acuity was 20/30. At the slit-lamp examination, we observed iris prolapse through the main incision of the cataract surgery not covered by conjunctival tissue, conjunctival injection, lower lid's chemosis and swelling. There was mild anterior chamber's reaction and no subluxation of the intraocular lens. Seidel test was negative and fundus examination normal. OCT, B-scan ultrasonography and orbital CT scan were also normal.

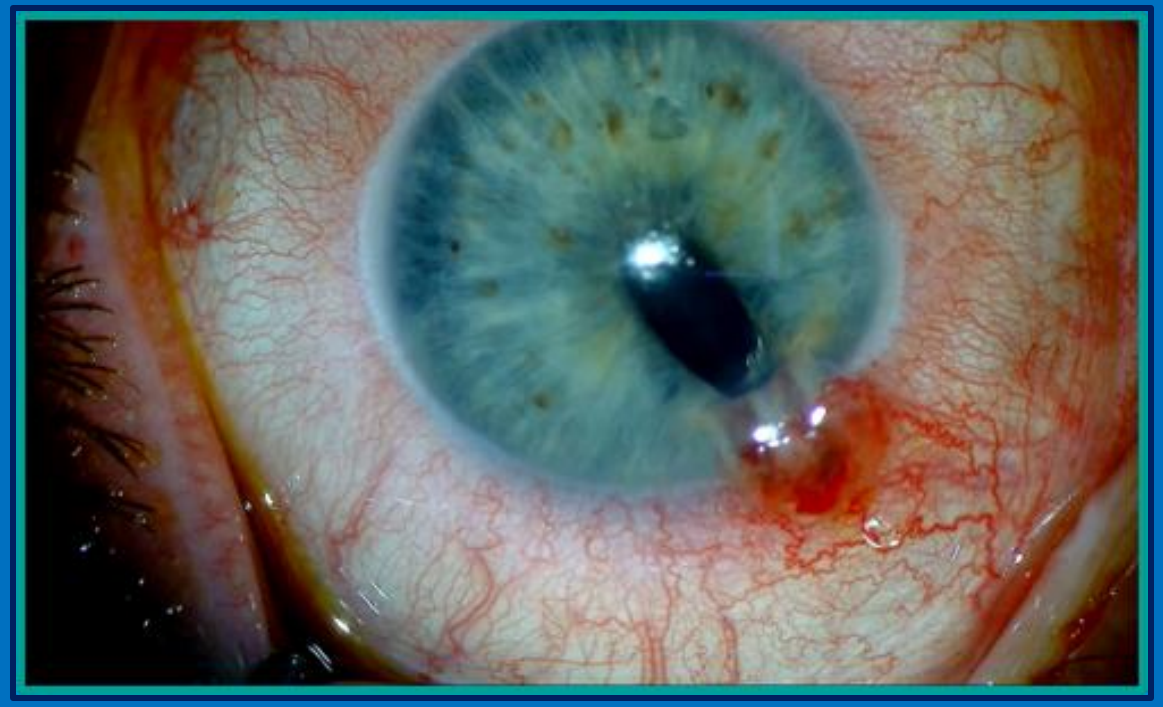
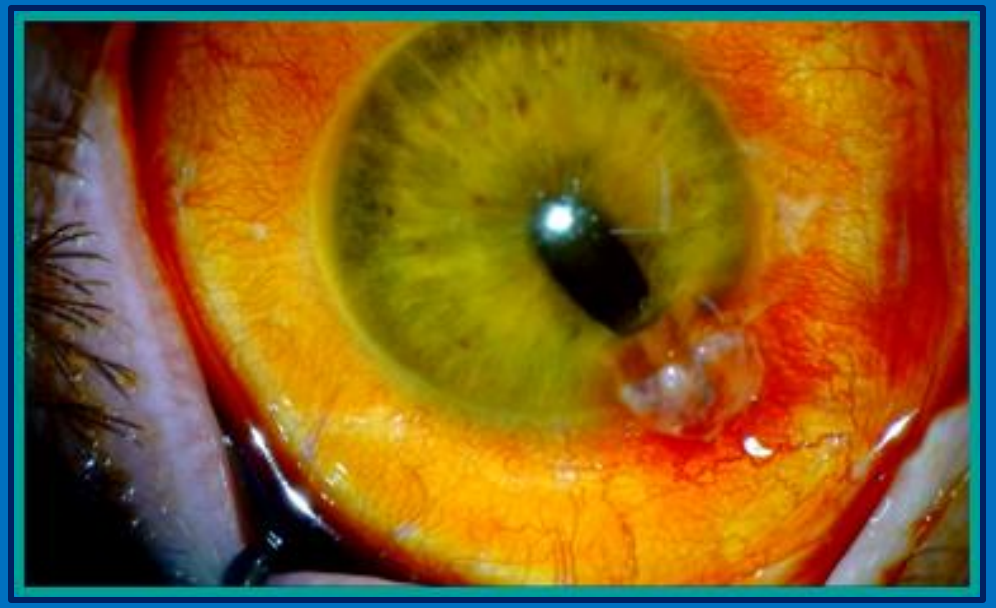
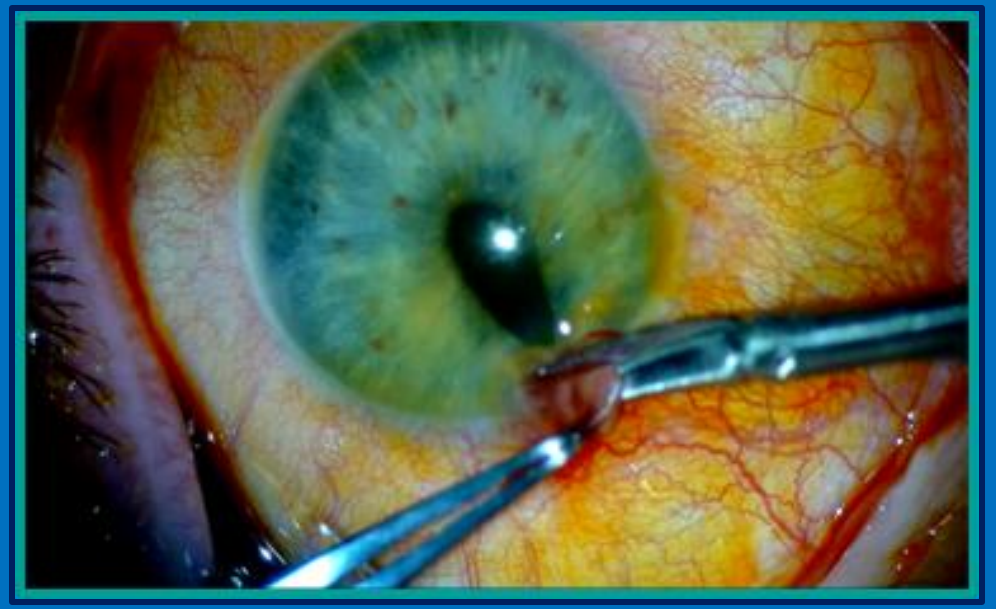


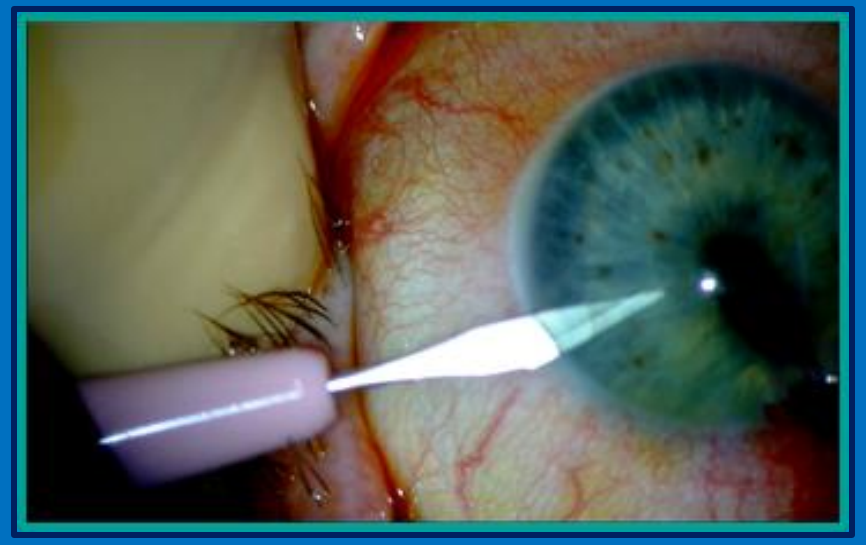
Figure 1 : Foto of the anterior segment of the injured eye with iris prolapse.

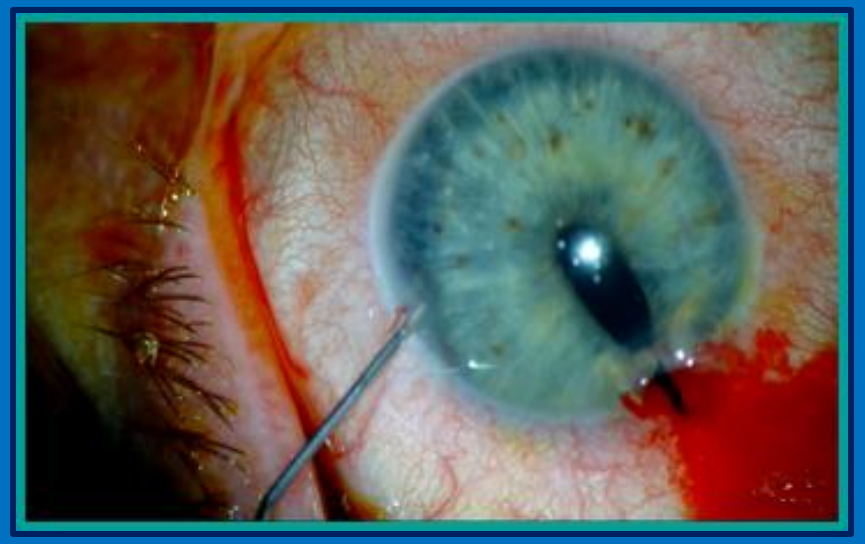
Methods : After culturing the prolapsed iris and ocular surface extensively (including gram +, gram - and fungal plates), we immediately started topical antibiotic prophylaxis with moxifloxacin 5mg/ml eye drops. We also administrated intravenous moxifloxacin 400mg/250ml and a tetanus booster shot since her last was more than 10 years ago.
We used ropivacaine 2mg/ml for topical anesthesia whereas surgical preparation included povidone-iodine 5%.



Methods : Since there was no conjunctival tissue covering the prolapsed iris and the trauma occurred more than 36 hours ago, we didn't reposition the prolapsed tissue in order to prevent endophthalmitis and epithelial ingrowth. The prolapsed iris was cut flush with the corneal surface and the wound checked for possible vitreous prolapse.

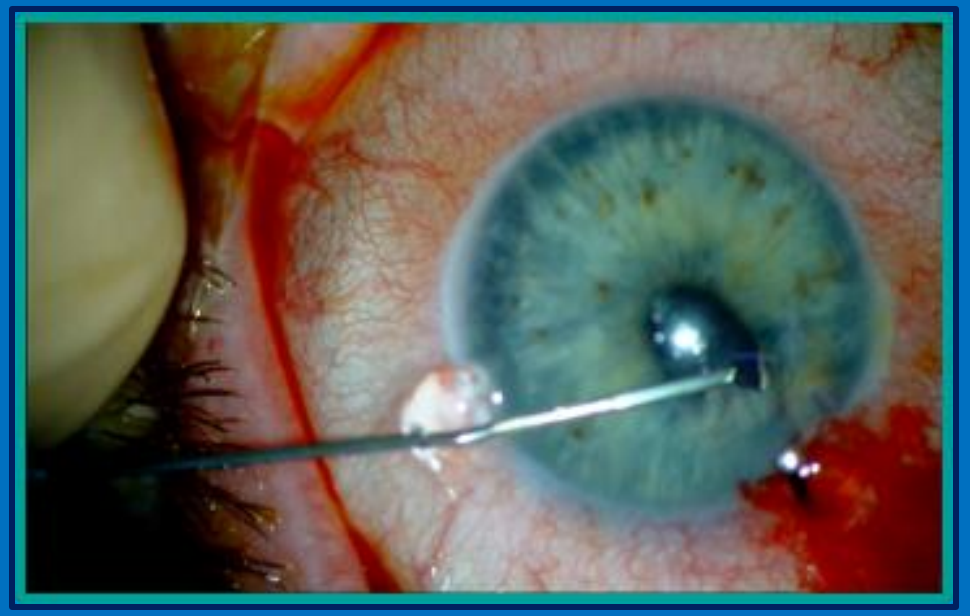




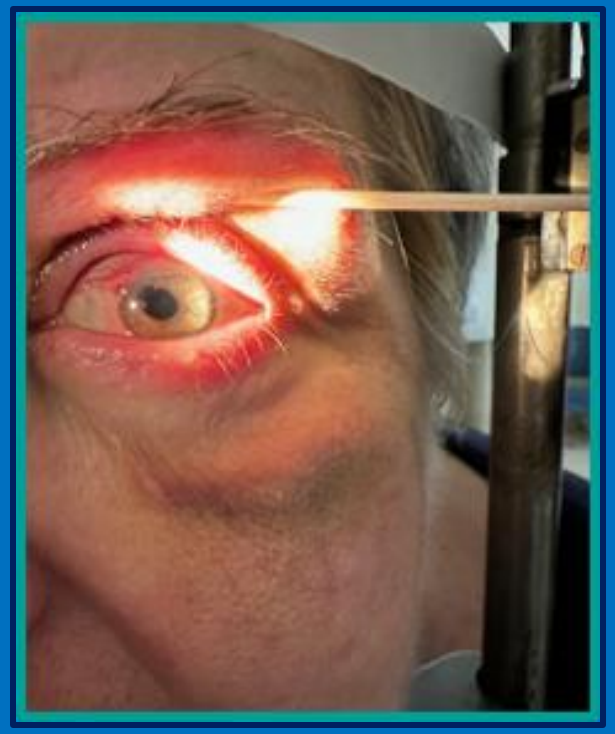


Methods : We created a side incision and removed some aqueous in order to decompress the anterior chamber and make it easier to reposition the prolapsed iris within the eye.

Methods : The iris was repositioned injecting a viscous dispersive viscoelastic. We then instilled triamcinolone diluted solution intracamerally and swept the wound area to verify the absence of vitreous. Miochol-E and mefoxil solution were instilled in the anterior chamber. Careful hydration of the main incision was enough to ensure a watertight wound.



Results : 24 hours postoperatively, the examination revealed mild stromal oedema of the cornea, bulbar conjunctival injection and no signs of endophthalmitis. We administrated oral and topical moxifloxacin, as well as topical 1% prednisolone acetate. The patient was advised to avoid exercise involving weight lifting. One week after the operation, the surgical result is excellent. The patient didn't complain for any diplopia or photophobia since the iris defect was located superiorly under the upper eyelid. 10 days after the surgery, we also prescribed nepafenac 1mg/ml 3 times daily for 2 months. Until today, follow-ups confirm the absence of endophthalmitis, epithelial ingrowth and cystoid macular edema.



Slit-lamp examination one week postoperatively with an excellent surgical result.

Slit-lamp examination one month postoperatively without any complications.

Conclusions : Iris prolapse is a surgical emergency that should be attended to as soon as possible, in order to avoid infection and possibly loss of the eye. The treatment of iris prolapse necessitates a tailored approach based on the extent of the prolapse, the cause and the overall health of the eye. Individual experience even over a long period is never very extensive, and surgeons are left with the great responsibility in deciding what is the best surgical approach to follow. We present the surgical interventions to reposition the iris and repair the wound, alongside with medical management to prevent infection and reduce inflammation, based on our experience, in order to help achieve an excellent visual and anatomical restoration.