

Management of Case of Traumatic Dislocation of Lens in Anterior Chamber

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Abstract: A 75 - year - old man presented to the ophthalmology department complaining of decreased vision and pain in the left eye after blunt trauma to the eye. On evaluation, the vision was limited to perception of light, and the intraocular pressure was 50.6 mmHg. Secondary acute angle closure glaucoma, with pupillary block due to anterior dislocation of the lens, was diagnosed. The intraocular pressure remained elevated after medical therapy, and the patient underwent intracapsular cataract extraction and anterior vitrectomy. The possibility of elevated intraocular pressure due to lens dislocation or other types of secondary glaucoma should be considered after blunt ocular trauma

Keywords: pupillary block, secondary glaucoma, vitrectomy

1. Introduction

Blunt trauma to eye cause sudden compressive deformation of globe displacing cornea, anterior sclera posteriorly with a compensatory expansion of globe in equatorial direction result in tissue damage that may manifest as radial sphincter tears of iris, hyphens, angle recession, cyclodialysis, peripheral retinal tears or other injuries.

Due to damage of lens zonule fibres dislocation or luxation of crystalline lens may also occur. After complete disruption of lens zonules, the lens may dislocate posteriorly or less commonly to anterior chamber.

Dislocation of crystalline lens results in vision loss that can be corrected with vision loss, symptoms varies according to dislocation of lens in anterior or posterior chamber, that can be corrected with surgical treatment. After ocular blunt trauma there is possibility of raised intraocular pressure due to dislocation of lens or other types of secondary glaucoma should be considered

Dislocation of lens in anterior or posterior chamber is emergency condition and immediate surgical management should be considered.

2. Case Presentation

A 75 year old male presented to Ophthalmology OPD complaining of decreased visual acuity and pain in left eye. The patient was stated that he had trauma with stone 2 days before presentation and had noted gradual worsening of symptoms after injury.

Patient had reported diminution of vision in both eyes since 6 months and had been diagnosed with immature senile cataract in both eye.

Patient had no history of any other chronic illness.

General examination

Patient was conscious, well oriented to time, place and person. All vital signs were within normal limit.

Ocular Examination

Right eye –

Visual acuity - 6/24

Lids - Normal

Conjunctiva - Normal

Cornea - clear

Anterior chamber – well formed

Iris – Normal colour pattern

Pupil – Normal size reactive to light

Lens – Immature senile cataract

Extra ocular movement - present in all direction

B scan - within normal limit

IOP - 14.6 mmhg

Left eye

Visual acuity - Perception of light

Lid - Normal

Conjunctiva - congestion

Cornea - corneal edema 2+

Anterior chamber – shallow with dislocated lens

Iris - details not seen

Pupil - details not seen

Lens - Immature senile cataract

Extraocular movement – present in all direction

B Scan – anteriorly dislocated lens with normal posterior segment

IOP - 50.6 mmhg

Rest of systemic examination was within normal limit

Laboratory investigations were within normal limit

Clinical diagnosis of this case is right eye immature senile cataract, left eye secondary angle closure glaucoma with pupillary block due to anteriorly dislocated lens with immature senile cataract.

Hospital Course & Management

- Medical management was done with intravenous mannitol 100 cc in 100 ml NS BD, oral administration of tab acetazolamide 250 mg TDS and topical administration of timolol 0.5 % eye drop BD, combination of moxifloxacin and prednisolone eye drops QID to control raised intraocular pressure, it was remained elevated due to secondary angle closure and pupillary block.
- Patient was treated surgically with intracapsular lens extraction and anterior vitrectomy was done with scleral fixated intraocular lens implantation.
- After surgery intraocular pressure was decreased to 20.6 mmhg in affected eye with post operative vision of counting finger 3 mtr taken on third day after surgery.
- Patient was advised for regular follow up.

3. Discussion

Traumatic lens dislocation is uncommon sequale of blunt ocular injury but it is important to recognise as it may be associated with vision threatening glaucoma Diagnosis is based on history and examination, it is important to identify presence or absence of pupillary block.

Surgical management of dislocated lens in anterior chamber may involve extracapsular cataract extraction or phacoemulsification, intracapsular cataract extraction or pars plana lensectomy with vitrectomy with intraocular lens implantation like ACIOL, scleral fixated lens, iris claw lens for visual rehabilitation.

The patient presented in this report was treated successfully with intracapsular lens extraction and anterior vitrectomy with scleral fixated lens implantation.

Prognosis for patient with traumatic dislocation of lens is good but urgent ophthalmic consultation is necessary.

4. Conclusion

The prognosis for patients with traumatic dislocation of the lens is good with prompt recognition of this type of injury and treatment of glaucoma. Urgent ophthalmologic consultation is necessary. Th outcome may be poor if prolonged anterior lens dislocation results in corneal decompensation, or if glaucoma associated with lens dislocation is not promptly recognized and treated.

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