

PHACOCELE DUE TO BLUNT TRAUMA

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ABSTRACT

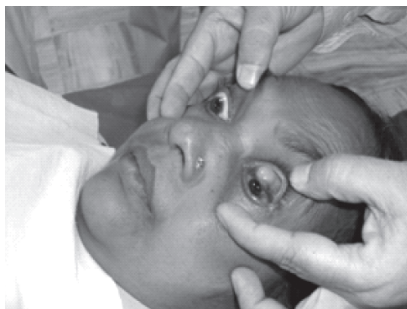
Blunt trauma can result in sclera rupture with subsequent dislocation of crystalline lens to subconjunctival or subtenon space. Such a dislocation of crystalline lens is termed as phacocele. Most cases of phacocele are associated with blunt trauma, scleral rigidity, hard crystalline lens and a history of scleral surgery. Here we report a case of traumatic phacocele with scleral defect.

KEYWORDS

Phacocele, subconjunctival space, sclera defect

CASE REPORT

A 50 year old lady presented with sudden diminution of vision in left eye following blunt trauma to face 2 days earlier. Vision in left eye was restricted to hand movement (HM).



Left eye phacocele presenting phacocele with hyphema as a firm subconjunctival mass



Examination of left eye revealed diffuse subconjunctival alhemorrhage, large firm well delineated sub-conjunctival cyst in superonasal quadrant 2mm from the limbus. There was lid ecchymosis and edema indicating severe

trauma. Cornea was clear. Anterior chamber was deep and hyphema was present. Movement of eye was normal.

LEFT EYE PHACOCELE PRESENTING PHACOCELE WITH HYPHEMA AS A FIRM SUBCONJUNCTIVAL MASS

Slit lamp examination revealed the absence of lens from the retro-pupillary area and inferior margin of lens was visible through the superior cornea. Iris was pulled superiorly and iridodialysis was noticed. Fundus examination was obscured due to hyphema. Digital examination revealed hypotony. B-scan revealed some degree of vitreous hemorrhage but there was no evidence of retinal detachment. Right eye was unremarkable.

Surgical intervention included exploration of wound under peribulbar anesthesia, removal of lens, anterior vitrectomy, and repair of the scleral wound. The conjunctiva was incised along the limbus from 2 to 10 o'clock position and lens removed. Examination of the cyst bed revealed scleral tear of about 5 mm parallel to the limbus extending from 1 to 10 o'clock. Scleral laceration was repaired with 6-0 vicryl suture and patient was left aphakic. Postoperatively patient was kept on oral & topical steroids, topical antibiotics, & serratiopeptidase.

Patient was asked to report at a later date for secondary implantation of IOL but the case was lost to follow up.

DISCUSSION

Phacocele is a rare complication of blunt injury to the eye, resulting from indirect trauma leading to scleral perforation. Blunt traumacan

result in an array of damage to the globe which acts as an incompressible sphere. Trauma of sufficient magnitude can result in rupture of eyeball either at site of impact (direct) or away from the site (indirect). This indirect force dislocates the lens through the scleral dehiscence into subconjunctival or subtenon space.

Phacocele has been reported to comprise 13% of all lens subluxation. It was first reported by Fejir in 1928.

The predominant site of indirect scleral rupture is superonasal quadrant followed by superotemporal quadrant. The inferotemporal quadrant is the most common site of impact which compresses the globe against the trochlea and rupturing it in the superonasal quadrant. The sclera rupture frequently occurs between limbus and Spiral of Tillaux. Spiral of Tillaux is the imaginary line joining the site of insertion of four recti muscle on sclera.

Phacocele is seen more frequently beyond 40 years due to increased scleral rigidity and hard crystalline lens. Apart from trauma, phacocele has also been reported due to deficient sclera following trabeculectomy or unplanned ECCE. To be more precise, dislocation of intraocular lens implant is termed as Pseudophacocele.

To conclude indirect blunt trauma can lead to sclera perforation with phacocele. Diagnosis is based on a history of blunt trauma,

presence of well delineated subconjunctival mass, and aphakia with intact bulbar conjunctiva and cornea. Detailed slit lamp examination & B-scan ultrasound done to confirm diagnosis and plan management.

Surgical intervention includes exploration of wound, removal of lens, anterior vitrectomy, repair of the scleral wound and placement of IOL in the same or second sitting. Timely and effective intervention can ensure good visual recovery.

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