Anterior Chamber Implantation Cyst: A Rare Case

V Sharma, S Shrivastav, S Vaidya

Introduction

The development of cysts within eye after perforating injury is a relatively rare event, the ultimate consequences of which are usually serious. Due to virility of regeneration of corneal epithelium, if the edges of wound are not apposed, cells swarm inwards to cloth the wound entirely, proliferate along the inner aspects of cornea, fill up and block anterior chamber and creep along the anterior surface of the iris. Such epithelium growth cysts are uncommon. Only 28 cases (0.06%) were found in 45,500 consecutive perforating wounds (accidental or surgical). Anterior chamber implantation cysts have been reported as rare cases after penetrating keratoplasty, cataract surgery, or perforation of cornea.

Case

A 43 year-old male, villager, blacksmith, residing in the village of Kindle, Badnawar, presented with a history of gradually progressive diminution of vision in the right eye since 6-8 months. There was watering, mild pain in the eye along with recurrent redness of the eye since 1 year. There was history of injury by nail while on job as blacksmith, 3½ years back. The local physician treated him. No relevant significant detail of past treatment was available, except, that vision was normal after 1-2 months of injury.

On Examination

Visual acuity (V.A.): Right Eye - 3/60 Left Eye - 6/9

Intraocular pressure (Schiotz): Right Eye 19.4 mm of Mg. Left Eye 17.3 mm of Hg.
Surgical removal of the cyst was done under local anaesthesia. A fornix base conjunctival flap was made, From 10 to 2 o'clock ab-externo corneal section was made by 11 no. scalpel blade. The cyst collapsed as the section was made; the cyst wall was removed in-toto by capsular forceps. The wound was freshened, all the tissues present in the wound were removed and incarcerated iris was abscessed. After air injection wound was closed by 8-0 mersilk, interrupted sutures. Histopathology of the tissue showed that the cyst was composed of stratified, non-keratinized squamous epithelium attached to loose fibrovascular tissue including island of melanin – containing epithelial cells. This was interpreted as epithelial implantation cyst of the anterior chamber of corneal origin attached to iris tissue. Postoperatively systemic & local antibiotics, anti-inflammatory, topical cortico-steroids and mydriatics were given. Sutures were removed after 1 month. Corrected vision was 6/9. Follow-up was done for 2 years. No recurrence occurred.

DISCUSSION

Within the globe of the eye cysts are rare; they can be in the anterior or posterior chamber. Epithelial implantation cysts may occasionally result from a perforating injury, following an incised wound or accidental perforating wound with retained foreign-body- steel instruments or glass, it may occur even with a lead pencil. The wall of the cyst may remain continuous with the surface epithelium along the track of the wound. The implantation cyst thus formed are of two types: PEARL CYST: appears as solid greyish white round or oval with a pearly luster, usually situated in iris stroma or in the angle of anterior chamber. SEROUS CYST, which are more common as compared to pearl cyst. They may arise within few weeks or many years after injury. Three stages are common:

1. Symptom free with no visual disturbances
2. Irritative period due to iridocyclitis.
3. Raised tension leads to absolute glaucoma.

Sympathetic ophthalmitis may occur in the other eye. Occasionally intraocular cysts cease to grow and may remain unchanged for an indefinite period of time. They may become smaller and disappear. The cyst is usually treated with Nd: YAG laser, or laser 6, 7. But the cyst has a tendency to reform that requires multiple treatment sessions or eventually surgical removal 6, 7.

Fortunately in our case no complication occurred and also no recurrence was detected even after 2 years, possibly because total removal of cyst was done.

References
Author Information

Virendra Kumar Sharma, M.S.
Associate Professor, Department of Ophthalmology, R.D.Gardi Medical College & Ujjain Charitable Trust Hospital Budhwariya

Saurabh Shrivastav, M.S.
Assistant Professor, Department of Ophthalmology, R.D.Gardi Medical College & Ujjain Charitable Trust Hospital Budhwariya

Sudhakar Vaidya, D.L.O. D.N.B.
Associate Professor, Department of E.N.T., R.D.Gardi Medical College & Ujjain Charitable Trust Hospital Budhwariya