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A RARE CASE OF LONG STANDING VEGETATIVE FOREIGN BODY IN THE ANTERIOR CHAMBER

Ophthalmology

Sheela P Kerkar — Additional Professor and Head of Department, Department of Ophthalmology, Seth G. S. Medical College and K.E.M. Hospital, Mumbai.

***Priyarthi Pradhan** — Junior Resident, Department of Ophthalmology, Seth G.S. Medical College and K.E.M. Hospital. * Corresponding Author

Samruddhi Dani — Junior Resident, Department of Ophthalmology, Seth G.S. Medical College and K.E.M. Hospital.

Ashish Ahuja — Visiting Retina Consultant, Department of Ophthalmology, Seth G.S. Medical College and K.E.M. Hospital.

ABSTRACT

We hereby describe a rare case of a patient with retained sugarcane stem in the anterior chamber of the right eye for 4 months leading to only corneal edema and no other ocular complications. The foreign body entered the anterior chamber following a penetrating self sealing corneal injury. The patient presented with redness and blurring of vision in the eye. Diagnosis was confirmed by slit lamp examination. The foreign body was removed surgically by an external approach.

KEYWORDS

Intraocular foreign body, penetrating ocular trauma, corneal edema

Introduction:

Penetrating trauma to the eye with resultant anterior or posterior chamber intraocular foreign bodies (IOFB) has been frequently encountered and may cause devastating sequelae including even loss of vision or the globe. The extent of injury depends on various factors such as size of the foreign body, composition of the foreign body, force and velocity of entry into the eye, site of entry wound and the final position of the foreign body in the globe. Anterior chamber foreign bodies account for only up to 15% of all intraocular foreign bodies [1]. The clinical manifestations and sequelae of anterior chamber foreign bodies varies depending on its composition, shape and its reaction with surrounding structures. To date, there have been several reports describing anterior chamber foreign bodies. Some foreign bodies such as glass, plastic and even cilium are well tolerated. [1-4] On the other hand, several studies have also reported that foreign bodies such as some glasses, metals, and cotton fibres may induce persistent iridocyclitis or bullous keratopathy. [1],[5],[6] In addition to the damage caused at the time of entry, there is also an increased risk of infective endophthalmitis with subsequent scarring. This also plays an important role in deciding the management.

Case Report:

A 67-year-old female presented to the emergency department with complaints of gradual, painless diminution of vision and redness of her right eye, which had developed since the last four months. Thorough history revealed that the patient had ocular trauma four months back with a sugarcane stick while working at a farm in her village. However, due to paucity of any severe symptoms or discomfort, the patient did not seek medical help earlier. On initial examination, her visual acuity was Finger Counting 1/4th metre with projection of rays present in all quadrants in the right eye and 6/6 in the left eye. Intraocular pressure was 14mm of Hg in the right eye and 15 mm of Hg in the left. Slit lamp and fundus examination of the left eye was within normal limits. Slit lamp examination of the right eye showed conjunctival congestion, generalized stromal edema of the cornea with epithelial microcysts, and a thin self-sealing corneal wound. This wound was initially estimated as a linear erosion of 2.5 millimeters in length located in the upper nasal quadrant of the cornea and was Seidel test negative. The anterior chamber was well formed with mild inflammatory reaction. A linear foreign body was noted in the superonasal part of the chamber with one end attached to the sealed corneal tear [Figure 1]. Lens appeared otherwise normal with only early nuclear changes. Posterior segment could not be visualized due to diffuse corneal edema.

USG B-Scan of the right eye revealed no foreign body in posterior chamber.

The patient was taken for surgical intervention. Foreign body was removed via a superior limbal incision and was found to be a 10mm linear sugarcane stem [Figure 2]. Patient was started on topical and systemic antibiotics. The postoperative vision remained finger counting at 1/4thmeter.

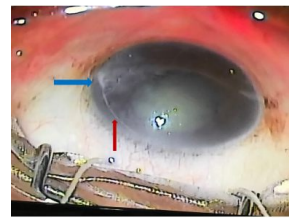

Figure 1: Pre-operative picture of the right eye showing a sealed corneal tear nasally (blue arrow) and a linear intracameral foreign body (red arrow).

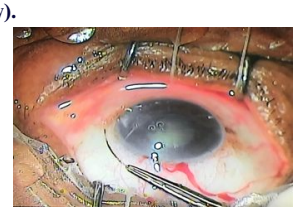

Figure 2: Intra-operative picture of the right eye showing a 10mm linear foreign body (sugarcane stem) being removed via a superior limbal incision.

Discussion:

Intraocular foreign bodies following penetrating ocular trauma are commonly encountered in ophthalmological practice. According to the United States Eye Injury Registry (USEIR), the incidence of intraocular foreign bodies in cases of open globe injuries is 16%. The site and velocity of entry determine the resultant location of the foreign body in the eye. Due to their higher velocity, metallic foreign bodies usually locate themselves in the posterior chamber, whereas non-metallic foreign bodies only penetrate the cornea and remain in the anterior chamber. The severity of anterior chamber inflammation induced depends on the level of irritation caused to the adjacent corneal endothelium, iris and lens.[7],[8] In case of vegetative foreign bodies, the resultant complications depends mainly on concurrent

entry of microbes during ocular trauma. Devastating sequelae including acute pyogenic panophthalmitis have been observed following entry of contaminated vegetable matter.[8] Mild inflammation following weed entry contaminated with saprophytic yeast or fungi has also been reported[9]. Epidermoid pearl cyst has also been seen as a rare end result of a retained foreign body.[10].

Management of an anterior chamber foreign body is decided based on factors such as type of initial trauma, size of the wound and features of the foreign body such as composition, exact location and size. Depending on the structural and visual complications caused in the eye, a decision is taken on whether to observe or to remove the foreign body. Due to advancements in surgical techniques leading to better prognosis, it has become easier to decide on foreign body removal.

In this case, the foreign body which had penetrated 4 months earlier, did not show any cellular adhesion or pigment deposition on its surface, or cause any corneal microbial infiltrate. The foreign body seemed to be well tolerated and showed no signs of infection. However, in view of diffuse corneal edema, it was decided to surgically remove the foreign body under the cover of topical and systemic antibiotics.

References:

1. Archer DB, Davies MS, Kanski JJ. Non-metallic foreign bodies in the anterior chamber. Br J Ophthalmol. 1969;53:453–456.
2. Jatinder Singh Bhalla, Pooja Lal ,Eyelash In Anterior Chamber: An Unusual Intraocular Foreign Body.DJO 2017[cited 2017 Sep 4];28:37-39.
3. Chang YS, Jeong YC, Ko BY. A case of an asymptomatic intralenticular foreign body. Korean J Ophthalmol. 2008;22:272–275.
4. Kargi SH, Oz O, Erdinc E, et al. Tolerated cilium in the anterior chamber. Ocul Immunol Inflamm. 2003;11:73–78.
5. Stangos AN, Pournaras CJ, Petropoulos IK. Occult anterior-chamber metallic fragment post-phacoemulsification masquerading as chronic recalcitrant postoperative inflammation. Am J Ophthalmol. 2005;139:541–542.
6. Brown SI. Corneal edema from a cotton foreign body in the anterior chamber. Am J Ophthalmol. 1968;65:616–617.
7. Yanoff K, Fine BS, Ocular Pathology . Hangerstown: Harper & Row, 1975. pp.157-58.
8. Duke Elder S. System of Ophthalmology . St. Louis: CV Mosby, 1972. pp.449-554.
9. Johnson DL. Gray LF. Saprophytic fungus in foreign body of anterior chamber, Arch Ophthalmol 1968; 80 : 403 - 4.
10. Eagle RC Jr, Sheilds JA, Carubg CL, Thompson RL. Intraocular wooden foreign body chinically resembles a pearl cyst. Arch Ophthalmol 1977; 95 : 835 - 36.