

Retained Intralenticular Foreignbodymanaged Surgically: A Case Report

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ABSTRACT

Traumatic cataracts resulting from either blunt or penetrating trauma are common. In penetrating injuries, intraocular foreign bodies should be suspected. Intralenticular foreign bodies (ILFB) are not that uncommon. They may be metallic or nonmetallic in nature. Necessity and timing of ILFB removal may be varied and can be adjusted according to the foreign body characteristics and associated ocular trauma. This is an interventional case report of a patient with traumatic cataract and ILFB managed surgically. We present a patient with penetrating eye injury, a metal foreign body in the lens and traumatic cataract. The case of traumatic cataract and retained intralenticular foreign body that was removed successfully with small incision cataract surgery and intraocular lens implantation in the capsular bag. The surgery and postoperative course were uncomplicated.

Keywords: Trauma, Cataract, Intralenticular foreign bodies

INTRODUCTION

Cataract formation following trauma is commonly seen as a result of direct penetration of the human crystalline lens by a foreign object or by blunt trauma.¹ Traumatic cataracts resulting from penetrating injuries occur mostly from high velocity, relatively small projectile foreign bodies sometimes, which may even lodge in the lens. It is seen in up to 25% of cases of intraocular foreign bodies.² Intralenticular foreign bodies (ILFB) are not that uncommon. They are encountered in about 7-10% of all intraocular foreign bodies.² They may be metallic or nonmetallic in nature. The foreign body lodged within the lens may alter capsular integrity resulting in the formation of visually significant cataract. In most instances, they tend to be small and the ruptures in the anterior capsule may seal spontaneously and these are associated with only focal cataractous change.

CASE REPORT

A 22-year-old male patient, carpenter by profession, presented after 7 months of initial injury in the left eye. He had a perforated wound of the cornea caused by a metal foreign body that also perforated the anterior lens capsule and remained in the paracentral anterior part of the lens. The injury occurred while grinding a metal object for sharpening, on a roller blade, showed the presence of a tangential corneal linear opacity site along with sphincter tear at 10 o'clock pupillary margin. The work was done without protective eye wear. The presence of a small metal foreign body embedded inside the lens with a sealed capsule was noted only after pupillary dilatation with mydriatic. The visual

acuity of the injured eye was 6/36. And no other sign of siderosis bulbi clinically. The presence of FB was confirmed to be metallic by X-ray orbit as well as with ultrasonography. On ultrasonography intact posterior capsule was also confirmed. The technique of removing the foreign body out of the lens was with with Kelman-Mcpherson after capsulotomy and the lens was aspirated out gently with simcoe canula and the implantation of intraocular lens done on intact posterior capsule. On the first postoperative day there were few signs of inflammatory, and best uncorrected visual acuity of 6/12. The best corrected vision on first week and six weeks postoperatively was 6/6.

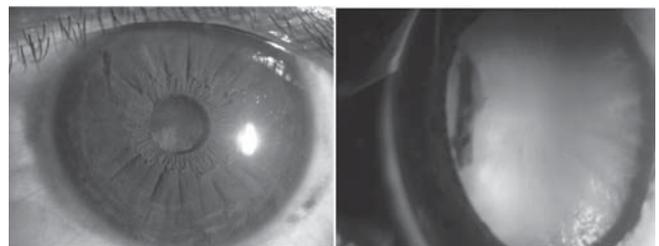


Figure 1, 2. Showing linear corneal perforation site, sphincter tear with cataract in undilated view and embedded ILFB in dilated view.

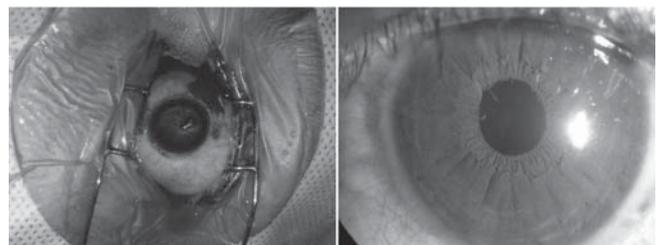


Figure 3, 4. Showing foreign body after removal placed in front of cornea and at first week postoperatively

DISCUSSION

The management of ILFBs has varied over the last century.⁴ Initially though intracapsular cataract extractions (ICCE) was recommended,⁵ ILFBs expression along with the lenticular nucleus, ECCE with PCIOL was recommended later.⁶ These days, use of forceps for ILFB removal is recommended to be safer than magnets.⁷ Aspiration or expression of cataract with IOL implantation during the same procedure as ILFB removal works well. Pre-existing traumatic posterior capsular rupture is not uncommon, therefore, a minimal and gentle aspiration or nuclear expression has been recommended. The decision to remove ILFBs depends on foreign body and its location and associated complication like severe inflammation and secondary glaucoma.^{8,9} Progressive and visually significant cataract is one of the indication. However, there have been reports with good vision in spite of a small lenticular foreign body.^{10,11} Post traumatic cataracts with a metal foreign body in the lens may require operative treatment in order to remove the foreign body¹². With Metallic FBs, intraocular metallosis and inflammation may be seen and ferrous containing ILFBs may cause siderosis bulbi.¹³ Siderosis bulbi secondary to ferrous FB may create iris heterochromia, pupillary mydriasis, cataract formation, secondary glaucoma, and retinal pigmentary degeneration. In most patients, early surgical removal of the foreign body is the treatment of choice. In our case since the patient presented a relatively late after the initial insult, the corneal wound was sealed and opacified. A separate wound was created superonasally as a scleral tunnel. The intralenticular foreign body was removed with help of forceps and cataractous lens were aspirated and IOL implantation done in same setting. Intraocular as well as intralenticular foreign bodies are not uncommon in a setting of open globe injuries. Use of protective eyewear may reduce such work related

trauma. Though the timing of intervention may vary, use of forceps in removal of ILFB seems safer and in an intact posterior capsule IOL implantation can be done after lens extraction, in same setting.

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