Ring in the Eye

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PRESENTATION

An 11-year-old boy presented to our institute with sudden pain and decreased vision in the right eye due to an injury sustained while playing with a necklace made of multiple small silver rings. Visual acuity at the presentation was hand motion. Slit lamp examination revealed a thickened, self-sealed corneal laceration with a traumatic total white cataract. A lateral [Figure 1a] and anteroposterior [Figure 1b] radiograph revealed a large ring-shaped foreign body present in the anterior orbit. The patient was scheduled for cataract surgery. After a conventional "can opener"/linear capsulotomy and gentle phacoaspiration of the cataractous lens matter, the large ring-shaped foreign body was removed using Kelman-Mcpherson forceps. The foreign body [Figure 1c] measuring 4 mm in external diameter was observed to be located between the inferonasal iris and the anterior capsule of the cataractous lens. It was removed and an intraocular lens was placed for visual rehabilitation. Three weeks after surgery, the vision had improved to 6/18.

DISCUSSION

Intralenticular foreign bodies are uncommon after penetrating eye injuries, occurring in approximately 5% to 10% of cases. [1] They may be metallic or non-metallic

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in composition. The altered capsular integrity leads to a decrease in visual acuity resulting from the formation of a visually significant traumatic cataract. [2]

The recommended technique to remove an intralenticular foreign body^[3,4] has changed considerably in the last few decades from intracapsular to extracapsular cataract extraction and currently to phacoemulsification. The decision to remove an intralenticular foreign body with cataract should be based on the size of the foreign body and the degree of cataract. A small foreign body with localized cataract not involving the visual axis can be followed without intervention. The decision to remove a foreign object should also be based upon the observation of any complications, especially uveitis or glaucoma, as well as the patient's visual requirements.



Figure 1. Lateral (a) and anteroposterior (b) radiographs demonstrate a ring-shaped foreign body located in the anterior orbit. (c) Ring-shaped foreign body removed from the cataractous lens.

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If a total white cataract, problems of free-floating lens matter in the anterior chamber, uveitis, or raised intraocular pressure develop, surgical intervention should be performed as soon as possible. [1] Forceps for intralenticular foreign body removal are generally much safer than the conventionally used magnets. We argue that phacoaspiration or cataract expression with intraocular lens (IOL) implantation and removal of the foreign body at the same session is usually the best approach. As pre-existing traumatic posterior capsular rupture is anticipated in some cases, a minimal and gentle aspiration or nuclear expression is recommended using slow-motion phaco. The surgeon should be prepared for posterior capsular tears and the requirement of anterior vitrectomy. Postoperative inflammation can be managed with the use of intraoperative subconjunctival steroids and postoperative topical and oral steroids if necessary.

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Conflicts of Interest

There are no conflicts of interest.

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