Management of an Anterior Chamber Eyelash

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CASE REPORT

A 36-year-old man was seen at a local hospital after being struck in the right eye with a metal wire. Visual acuity at that time was light perception RE and 20/20 LE. Extraocular motility was full; the right eye had a relative afferent pupillary defect. In addition, the right eye had a total hyphema and a central 4-millimeter corneal laceration, which was Seidel positive. The fundus of the right eye could not be visualized. The left eye was normal. Ultrasonography showed no intraocular foreign body, vitreous hemorrhage, or retinal detachment. A computed tomographic scan also showed no foreign body. The full-thickness corneal laceration was repaired with interrupted 10-0 nylon sutures. The patient did well postoperatively and was discharged after 3 days in the hospital on oral cephalaxin and methazolamide, and topical levobunolol, atropine, prednisolone acetate, and trimethoprim with polymyxin B.

Twelve days postoperatively, the patient reported improved vision and less discomfort. Best-corrected visual acuity RE was 20/80; the intraocular pressure was 10 mm Hg. Slit-lamp examination showed a sutured, healing, Seidel-negative corneal laceration. The anterior chamber had 1+ cell and flare. The pupil was dilated with a few posterior synechiae. There was a focal lens opacity at the 3 o'clock meridian and early posterior subcapsular cataract formation. A cillum was noted on the inferior aspect of the anterior lens capsule (Figure). The cillum extended behind the iris at the 4 o'clock meridian. The fundus was normal.

The patient was referred to Wills Eye Hospital for evaluation and intraocular ciliates. After discussing the findings and therapeutic options with the patient, it was decided to continue close observation. Over the following 3 months, the patient returned for regular follow-up examinations, which showed a gradual improvement in both vision and ocular inflammation. Best-corrected visual acuity had improved to 20/40 RE. The ocular medications were tapered as the inflammation resolved.

FIGURE: Slit-lamp photograph of the right eye demonstrating an intraocular cillum lying on the anterior lens capsule. The corneal laceration is sutured. Note the posterior synechia and associated focal lens opacity at the 3 o'clock position.

DISCUSSION

Intraocular cilia have been reported following penetrating trauma and intraocular surgery. Although this complication is rare, the clinical course of eyes with the condition varies significantly. Some remain asymptomatic for decades; others become symptomatic within days. The management of intraocular cilia, therefore, remains controversial.

Intraocular cilia have been associated with a range of inflammatory reactions, including granulomatous and nongranulomatous uveitis, plastic iridocyclitis, and epithelial cystic formation. The inflammatory response may manifest as acute, chronic, or recurrent episodes of uveitis. It is unclear why cilia that have remained quiescent for decades suddenly stimulate an inflamma-
tory reaction. The uveitis in these cases has reportedly responded to surgical removal of the cilia anywhere from 12 days to 3 decades after the initial trauma.\textsuperscript{1-3} Topical steroids can be used to decrease the inflammatory response in the preoperative period.

Other complications, including endophthalmitis and, rarely, sympathetic ophthalmitis, have been described as having developed in association with intraocular cilia.\textsuperscript{4} One case of a lenticular abscess secondary to \textit{Propionibacterium acnes} has been reported.\textsuperscript{5} Endophthalmitis has been managed with removal of the intraocular cilia, cultures, and intensive intravenous, intravitreal, and topical antibiotic therapy. The management of intraocular cilia in other cases remains uncertain. Some authors have questioned the effect of cilia in contact with the corneal endothelium.\textsuperscript{3,5} Cilia with endothelial contact may increase the risk of subsequent corneal edema. Cilia may also play a role in stimulating vitreal fibrosis, resulting in rhegmatogenous retinal detachment.\textsuperscript{6} In these cases, the role of the penetrating trauma vs the intraocular cilia remains uncertain.

In the case we have presented, the patient had a subacute presentation of an intraocular ciliary; management was conservative. There was some anterior chamber inflammation; however, this was considered consistent with the resolution of the initial trauma. The inflammation gradually resolved and the patient remained asymptomatic 3 months after initial presentation. Because intraocular implantation of one or more cilia is such a rare occurrence, each case must be managed individually. Careful consideration of the risks and benefits of surgery versus observation should be weighed for each patient.

REFERENCES