Chronic *Staphylococcus hominis* endophthalmitis following injury with a retained intraocular foreign body

We report a case of endophthalmitis caused by *Staphylococcus hominis* that developed after a penetrating eye injury following 14 months of quiescence.

Case report

A 9-year-old girl sustained an eye injury while hammering but maintained good vision per report. She was not initially examined by an eye physician and noted progressively worsening vision. Fourteen months after her injury, a cataract surgeon preoperatively noted a sealed traumatic corneal wound, no inflammation, and a traumatic cataract, but intraoperatively found a small rock lodged in the lens. Her post-surgical course was complicated by recalcitrant inflammation, and she was referred for retina evaluation 2 months after surgery. Examination of the right eye revealed 20/60 vision, granulomatous keratic precipitates, 1+ anterior chamber cell, a lens in the bag, and a dense fibrous posterior capsular opacity with the appearance of a capsular hypopyon. Minimal vitritis was evident on B-scan ultrasound. Given the concern for chronic endophthalmitis, the patient underwent pars plana vitrectomy, intraocular lens removal, total capsulectomy, and injection of intravitreal voriconazole (0.1 mg/0.1 ml), ceftazidime (2.25 mg/0.1 ml), and vancomycin (1 mg/0.1 ml). Lens capsule pathology demonstrated Gram-positive cocci (Figure 1). PCR of the vitreous and aqueous samples confirmed S. hominis. Eighteen months after vitrectomy, the patient's eye was quiet without medication and remained aphakic with 20/20 contact lens-corrected vision.

Comment

Chronic exogenous bacterial endophthalmitis can be challenging to diagnose and manage as onset is often insidious and can be remote in time from ocular injury.^{1–3} *S. hominis,* a part of normal skin flora, was the cause of indolent infection in this case. To the authors' knowledge this is only the third case thus far reported^{4,5} and had an

unusually long period of quiescence following the initial ocular trauma. These organisms, most likely sequestered in the avascular crystalline lens after injury, appeared to have reactivated after surgical disruption of the lens capsule during cataract extraction and lens placement.

The patient was referred for secondary intraocular lens placement, but the anterior segment surgeon was reticent to place an anterior chamber lens, or iris fixated or scleral fixated lens in a patient of such young age as long as she maintains good vision and tolerates contact lens correction.

Conflict of interest

The authors declare no conflict of interest.

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Figure 1 200 × PAS (a) and 600 × Brown and Brenn (b) histological stains of the lens capsule biopsy demonstrating micro abscesses.