A 70-year-old white male presented in September 2016 with vision in the right eye following bilateral cataract surgery. Initial exam at our institution, visual acuity was 20/100 in the right eye following a 3+ afferent pupillary defect. Slit lamp exam showed 4+ anterior chamber cells, whitish scattered plaques between the artificial lens and capsule, 2+ vitreous, and 360 degrees of chorioretinal lesions. Repeat viral polymerase chain reaction (PCR), and bacterial and fungus cultures were negative until a positive H. capsulatum result 17 days after biopsy. Posterior capsule biopsy demonstrated H. capsulatum, and serum antibodies for H. capsulatum were negative.

Histoplasmosis is a common and typically asymptomatic fungal infection endemic to much of the central and eastern United States. This report presents a case of postoperative histoplasmosis endophthalmitis with multimodal imaging and histopathology. Although intraocular histoplasmosis infection is almost always endogenous and associated with signs of disseminated histoplasmosis, this patient was not from an endemic area and did not show signs of systemic infection. Diagnostic and treatment methods which led to improved and preserved visual function are discussed.

Discussion

With only one other infection of a similar mechanism reported in the literature,1 this is the first report of postoperative histoplasmosis endophthalmitis which incorporates available multimodal imaging and histopathology that resulted in a relatively positive clinical outcome. It is also the first case to occur outside of an endemic area. While it is unusual to have occurred in an immunocompetent patient, this likely reflects the iatrogenic nature of the introduction of the organism during cataract surgery. This mechanism of organismal spread is confirmed by the presence of H. capsulatum within the retained lens capsule.

Conclusions

Endophthalmitis following cataract surgery is a rare complication,2 especially with fungal organisms. Clinicians should be aware of how to diagnose and treat this infection. Key points to optimizing visual outcomes include:

- Considering a broad differential diagnosis
- Allowing cultures to grow for longer durations than is typical in order to detect low-grade pathogens
- Committing to an extended course of therapy for better infection resolution
- Removing all intraocular hardware to eliminate it as a possible nidus for infection
- Appreciating globalization of infectious disease due to modern connectivity through travel3

References


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Conflict of Interest

Dr. Dacey reports personal fees, non-financial support and other from AbbVie; personal fees, non-financial support and other from Allegan, outside the submitted work. Dr. Palestine, Dr. Pecen, and Neil Bishop have no conflicts of interest to report.