Case Study 91
Endophthalmitis

AB is a 72-year-old man who underwent cataract surgery in the right eye and was seen in the office the next day for a postoperative checkup. The cataract was a stage 4 sclerotic nucleus, and phacoemulsification had been performed for a prolonged period of time because of the density of the nucleus. He complained of a mild aching pain during the night and blurry vision. Examination found visual acuity of 20/400 in the right eye with a moderate amount of corneal edema and 2 to 3+ cells and flare in the anterior chamber. The vitreous and fundus could not be well seen because of the anterior segment changes of corneal swelling and anterior chamber reaction. He was sent home and instructed to use topical antibiotic and steroid drops. He called 4 days later and stated that his symptoms were worse and he was concerned. He was brought back to the office, and the clinical findings were about the same with possibly a slight increase in the anterior chamber reaction.

The B-scan showed a partial posterior vitreous detachment. However, the A-scan gain was set at $T+6$ and demonstrated multiple tiny blips in the vitreous cavity (Fig. 1). This was interpreted as early vitreous reaction with a differential diagnosis including hemorrhage or inflammatory cells. In the clinical setting of recent cataract surgery, the diagnosis of endophthalmitis was made, and he was referred to a retinal specialist for a vitreous tap and the injection of intraocular antibiotics. As recommended by the collaborative endophthalmitis study, vitrectomy was not performed because the patient had vision at the 20/400 level. If it had been hand motions or worse, then vitrectomy would have been indicated [33].

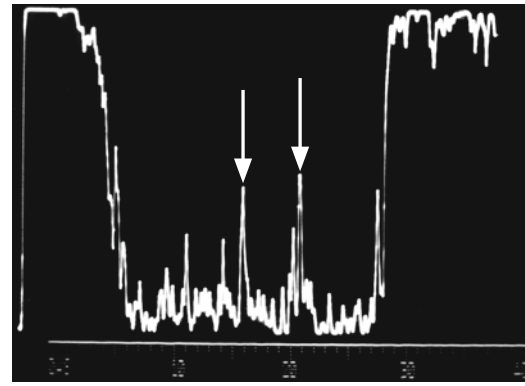

FIG. 1 A-scan of vitreous opacities in aggressive endophthalmitis (*arrows*)

He was followed daily over a week with serial A-scans to monitor the vitreous reaction. His clinical symptoms improved concurrently, and an adequate view of the fundus could be obtained at this time. He ultimately improved to a visual acuity of 20/40 as the vitreous reaction cleared and the corneal edema resolved. The final culture report was read as "significant *Staphylococcus epidermidis*."

Endophthalmitis can follow an indolent course as a low-grade iritis that does not respond to treatment with anti-inflammatory medications.

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