AN UNEXPLAINED INTRAOPERATIVE CILIORETINAL ARTERY OCCLUSION

BY SANTOSH GOPIKRISHNA, MD, AND ANUPAMA KIRAN KUMAR, MD

A 35-year-old man presented to us with a history of a penetrating injury to his left eye (OS) with an iron wire fragment while at his workplace the previous night. On examination, the patient's BCVA was 6/6 and 6/6- in the right eye (OD) and OS, respectively. Ocular examination was normal OD. Examination OS revealed a juxtalimbal corneal entry wound with anterior chamber reaction and an intraocular foreign body (IOFB) in the inferior retina with localized retinal detachment and vitritis (Inset, right).

A three-port pars plana vitrectomy with IOFB removal and silicone oil injection was performed under local anesthesia. After initial vitrectomy, perfluorocarbon liquid was injected to stabilize the posterior pole and to prevent the IOFB from floating onto the macula. A total posterior vitreous detachment was induced, the port was enlarged, and the IOFB was removed through the scleral port with a rare-earth magnet. The IOFB never came in contact with the posterior pole during the entire 40-minute surgery.

During fluid-air exchange, a whitening of the macula was noted. The patient's intraocular pressure was well maintained within the set limits of 30 mm Hg to 40 mm Hg during the procedure.

At his first postoperative visit, the patient's visual acuity was noted to have dropped to counting fingers at 0.50 m with corresponding inner retinal edema suggestive of an arterial-occlusion–like phenomenon, possibly a cilioretinal artery occlusion. By 6 weeks postoperative, his visual acuity improved to 6/36-, and retinal thinning and disruption of the photoreceptor layers were noted (Inset, left). His condition remained the same at 3 months postoperative (Main Figure). One possible explanation for this could be a cilioretinal artery occlusion caused by freely circulating toxins from the IOFB. Another possible mechanism could be microvasculature changes secondary to chronic smoking, making the patient susceptible to even subtle intraocular pressure changes intraoperatively. In the absence of conclusive evidence, we can only speculate. ■

SECTION EDITOR MANISH NAGPAL, MS, DO, FRCS(EDIN)
- Senior Consultant, Retina and Vitreous Services, Retina Foundation, Ahmedabad, India
- drmanishnagpal@yahoo.com

SANTOSH GOPIKRISHNA, MD
- Consultant, Vitreoretinal Services, Narayana Nethralaya, Bangalore, India

ANUPAMA KIRAN KUMAR, MD
- Consultant, Vitreoretinal Services, Narayana Nethralaya, Bangalore, India
- anudoc81@gmail.com

If you have an image or images you would like to share, email Dr. Nagpal.
Note: Photos should be 400 dpi or higher and at least 10 inches wide.