

"BLINDED BY PRESSURE: ATYPICAL ENDOPHTHALMITIS REVEALED BY ACUTE OCULAR HYPERTENSION FOLLOWING CATARACT SURGERY" A DIAGNOSTIC CHALLENGE FOLLOWING UNEVENTFUL SMALL INCISION CATARACT SURGERY

Ophthalmology

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KEYWORDS

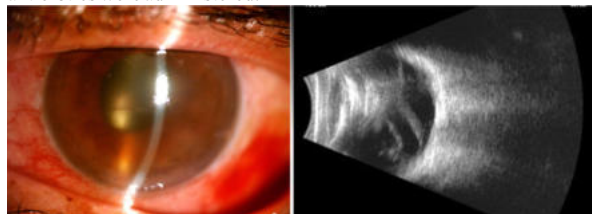
cataract surgery complication, acute ocular hypertension, early-onset endophthalmitis

PURPOSE:

To report a case of early-onset endophthalmitis, presenting primarily with ocular hypertension

METHOD:

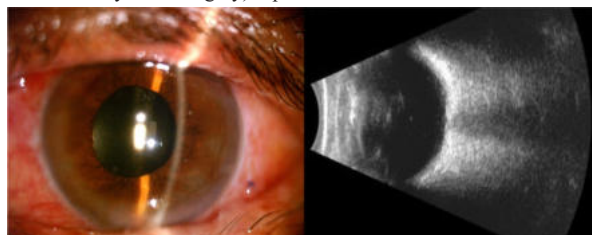
This is an interesting case of a 50 years old male patient presented eight days after uneventful small incision cataract surgery (On post-op day 1 visual acuity 6/9) with severe ocular pain and blurred vision in the operated eye (visual acuity HM+). On examination, intraocular pressure was markedly elevated (IOP: 46 mmHg), with corneal edema, mild conjunctival injection, watering. Fundus view was hazy, and B-scan ultrasonography revealed dense membranous echoes in vitreous cavity. We started treatment for presumed post-op glaucoma, but symptoms persisted and patient was still suffering with pain. Aqueous and vitreous taps were performed, and empirical intravitreal antibiotics were administered.



Anterior segment & B-scan photo at presentation

RESULTS:

Culture was negative. A diagnostic pars plana vitrectomy was performed and then patient was started on topical and oral antibiotic and steroid therapy. After pars plana vitrectomy, inflammation gradually resolved and visual recovery was good (visual acuity was 6/36 three days after surgery) & patient was satisfied.



Anterior segment & B-scan photo after Pars plana vitrectomy

DISCUSSION:

Postoperative endophthalmitis is a serious complication that can occur after cataract surgery. It occurs mainly due to invasion of the globe by microbial flora, bacteria, or fungi from the adnexa and environment during the time of surgery. As cataract surgery comprises a large segment of intraocular operations, most scientific reports related to postoperative endophthalmitis focus mainly on cataract surgery [1].

Endophthalmitis is clinically presented by decreased visual acuity with pain and redness of the eye, which usually happens within one to two weeks postoperatively.

Diagnosis of post-cataract endophthalmitis depends predominantly on

clinical suspicion. Signs and symptoms comprise hypopyon, hazy media, light perception (LP) vision only, blurred vision, red eye, pain, swollen lid, and photophobia, which can then be established by the aqueous and vitreous sampling as soon as possible [2].

It is important to consider the potential differential diagnosis of endophthalmitis, including non-infectious inflammation (toxic anterior segment syndrome), residual lens material, flare-ups of previous uveitis, and vitreous hemorrhage. Toxic anterior segment syndrome (TASS) imitate infective endophthalmitis due to the various toxins entering the eye during the surgery leading to severe corneal edema. All these conditions are associated with obvious inflammatory reactions and hypopyon may clinically mimic infective endophthalmitis.

Isolating the causative organism for gram staining, culture, and polymerase chain reaction (PCR) test is the mainstay in guiding management in resistant cases to assess antibiotic susceptibility, even though the treatment of suspected cases with empirical broad-spectrum antibiotics should be started at once [3]. B-scan ultrasonography is advocated especially in culture-negative cases, which occur in approximately 30% of cases. It also can estimate the degree of vitreous opacification and detect the presence of both choroidal and retinal detachment [4].

The basis of the control of massive bacterial postoperative endophthalmitis is the simultaneous intravitreal injection of unpreserved dexamethasone and broad-spectrum antibiotics combination [5].

In cases of fulminant refractory acute postoperative surgery endophthalmitis with rapidly worsening visual acuity, complete vitrectomy operation is the elementary option to debride ocular pus [6].

CONCLUSION:

This case underscores a rare, early-onset presentation of atypical endophthalmitis dominated by ocular hypertension and highlights the importance of considering infectious causes in cases of postoperative inflammation with elevated IOP, even in the absence of positive culture reports.

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