

Burkholderia Cepacia: An Unusual Cause of Post Surgical Endophthalmitis

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Dear Sir,

Postoperative acute endophthalmitis remains a serious and blinding complication even today. Microorganisms which reside in the skin around the eyelids, eyelashes, conjunctiva, or lacrimal sac are the usual source of infection. *Staphylococcus epidermidis* is the most common organism recovered from patients with culture-proven endophthalmitis.^[1] Gram negative species are found in fewer cases. *Burkholderia cepacia* (previously known as *Pseudomonas cepacia*) is an opportunistic Gram Negative bacteria non-fermentative bacilli widely distributed in the environment. *Burkholderia cepacia* does cause significant infection not only in cystic fibrosis, chronic granulomatous disease, and immunocompromised patients, but also in healthy individuals.^[2] Organism able to survive on and in medical devices and disinfectants. Intrinsic resistance to multiple antimicrobials agents also contribute to the organism survival in hospitals.^[3]

A 58 years old male presented in the outpatient department with pain, redness, swelling, fever, diminished vision in left eye just after a day of cataract surgery with posterior chamber IOL implantation. Examination revealed lid edema, conjunctival and circumcilliary congestion along with corneal edema. Intraocular pressure was high. At the same time only perception of light was present.

Vitreous sample was sent for culture and sensitivity along with gram staining. Gram stain revealed presence of gram negative bacilli with morphology. Bacterial culture was done on blood agar and MacConkey agar media. Growth showed presence of gram negative, non fermenter, oxidase positive bacteria. The identification and sensitivity was done on automated VITEK 2c system, which revealed *Burkholderia cepacia* which was only sensitive to the

drug the ceftazidime. Treatment remains a big challenge as it can easily become resistant to antimicrobial agents like in this case, which was found to be resistant to all the antibiotics commonly used in ophthalmology. The poor penetration of antibiotics into the eye also results in it being a difficult infection to treat.^[1] Treatment was started as injection moxifloxacin, amikacin and eye drop atropine and Predmet Ophthalmic (Prednisolone Acetate), with no improvement of vision, pars plana vitrectomy was done. Two weeks after follow up patient improved clinically. The vision improved to 6/12. The source of infection could not be traced.

Despite the availability of modern surgical techniques and standard sterilization methods, the incidence of postoperative endophthalmitis is still seen in 0.05% to 0.15% cases of cataract surgery.^[1] *Burkholderia cepacia* can cause nosocomial infection and commonly acquired through contaminated medical source such as anesthetics, disinfectants, intravenous solutions, nebulizer solutions, mouth wash and medical devices.^[4] Investigation revealed the presence of this organism in chlorhexidine (0.2 percent) mouthwash as well as other chlorhexidine antiseptic solutions used for routine urologic and obstetric procedures.^[5] Better understanding of surgical techniques, instrumentation, prophylactic antibiotics, ambulatory surgery, and proper asepsis will significantly reduce its incidence. This will be helpful for reducing such incidences, otherwise outbreaks may occur in most vigilant setting and any sterile consumable may be a common link.

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Competing Interests

None

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