Staphylococcus Haemolyticus Endophthalmitis Following Cataract Surgery Clinical and Surgical Management

Staphylococcus Haemolyticus

Staphylococcus haemolyticus is a member of the coagulase-negative staphylococci (CoNS). It is part of the skin flora of humans, and its largest populations are usually found at the axillae, perineum, and inguinal areas. S. haemolyticus also colonizes primates and domestic animals. It is a well-known opportunistic pathogen, and is the second-most frequently isolated CoNS (S. epidermidis is the first). Infections can be localized or systemic, and are often associated with the insertion of medical devices. The highly antibiotic-resistant phenotype and ability to form biofilms make S. haemolyticus a difficult pathogen to treat.

Endophthalmitis from Staphylococcus haemolyticus is a rare cause of endophthalmitis in the postoperative setting following cataract surgery, with an incidence of 0.002%.
Methods

Ophthalmologic examinations, treatment methods, antibiotic susceptibility, and final examinations of 4 patients who had endophthalmitis after cataract surgery in our clinic were evaluated retrospectively.
All patients underwent phacoemulsification and intraocular lens implantation in the same surgical session. They complained ocular pain and severe visual loss ranged from hand motion to light perception within 72-96 hours after surgery.
All patients underwent a three port pars plana vitrectomy 25-Gauge+ within 4 hours from emergency room admittance. IOL explantation was performed except in one patient. Vitreous was removed as possible and its sample was analyzed. Finally we performed an intravitreal injection of Amikacin 0,4mg/0,1 ml and Vancomycin 1 mg/0,1 ml, and silicone oil tamponade was performed. Vitreous samples of all patients revealed Staphylococcus Haemolyticus sensitive to vancomycin, rifampicin and fusidic acid. So sistemic rifampicin and topic fusidic acid were started. In three patients silicon oil was removed two months later.
Results

At last follow-up (3 months after vitrectomy) three patients showed a BCVA ≥0.3 LogMAR. In the last patient iris neovascularization due to Central Retinal Artery Occlusion developed rapidly after vitrectomy. This patient underwent retinal laser photocoagulation and silicon oil was not removed.
Results-Cases

1. Vit 25G + IOL explatation + silicon + Amikacin + Vancomycin
   Silicon aspiration + IOL implants
   BCVA 0.3 logMAR

2. Vit 25G + IOL explatation + silicon + Amikacin + Vancomycin
   Central Retinal Artery Occlusion
   PRP + Bevacizumab
   BCVA H.M.

3. Vit 25G + silicon + Amikacin + Vancomycin
   Silicon aspiration
   BCVA 0 logMAR

4. Vit 25G + IOL explatation + silicon + Amikacin + Vancomycin
   Silicon aspiration + IOL implants
   BCVA 0.1 logMAR
Conclusion

Although Staphylococcus Haemoliticus is an uncommon bacterium of postoperative endophtalmitis, it should be considered as a noteworthy pathogenic agent in patient underwent cataract surgery. Endophtalmitis treatment should be planned for each patient individually, according to their clinical presentation. Clinical and visual outcomes in our experience could be various and probably related to initial presentation.
References


