
BLEB RELATED ENDOPHTHALMITIS

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Intraocular infection is the most sight threatening complication after successful filtration surgery. It occurs infrequently and is usually a late complication.

Glaucoma surgery is the cause of an intentional bleb, but inadvertent blebs occur after trauma, cataract surgery or cycloablation procedures. The symptoms of bleb infection must be explained to all patients after glaucoma surgery. On occurrence of any blurred vision, ocular discomfort, red eyes, eye pain and tearing, the patient must be educated to report immediately on that day. Bleb infections are often treatable successfully if patients are aware of these symptoms and report early to the ophthalmologist. Filtering surgery with antimetabolic agents has increased the risk of endophthalmitis- due to the thinness of the bleb. The incidence reported with mitomycin C is 2-3%.

Presentation:

2 different types of presentation have been recognized:

- 1) Blebitis
- 2) Endophthalmitis

Blebitis defines an infectious-inflammatory process of the bleb region characterized by injection, clouding of the bleb, wound leak, AC reaction, hypopyon, but clear vitreous. It is treated with topical and systemic antibiotics.

Endophthalmitis presents with all signs of blebitis, hypopyon and definite vitritis. There is profound visual loss and the treatment involves intravitreal antibiotics and steroids, systemic antibiotics and pars plana vitrectomy.

Microbiology:

In blebitis cases staphylococcus species are isolated - Staphylococcus epidermidis is the commonest.

In late endophthalmitis cases Streptococcus species and Hemophilus influenzae were cultured. These organisms are highly virulent, hence the visual prognosis is extremely guarded. This is the reason why early vitrectomy is advisable in these cases after intravitreal injections.

Cultures should be obtained from the conjunctiva and aqueous and vitreous before instituting appropriate antibiotic therapy.

Aphakic and pseudophakic eyes are more vulnerable to infection due to easier penetration of the pathogen into the vitreous cavity.

Therapy

If infection occurs or is associated with bleb leakage and the bleb persists, revision of the bleb should be done.

Blebitis cases resolve with topical antibiotics and steroids and cycloplegics.

The antibiotics used are ofloxacin, tobramycin or vancomycin drops (freshly prepared 25 mg/ ml) 1 hrly.

Steroid drops are started after 12 -24 hrs, typically prednisolone acetate drops 1 hrly.

In case of blebitis with hypopyon, systemic antibiotics are added:

Inj vancomycin 500 mg i.v. every 8 hours and gentamycin 80 mg i.v. every 8 hours.

In frank endophthalmitis intravitreal antibiotics are given: Vancomycin 1 mg and Amikacin 400 µg along with topical and systemic antibiotics.

Early vitrectomy is indicated to clear the debris and bacterial load.

He who asks is a fool for five minutes, but he who does not ask remains a fool forever.
- Chinese proverb