Successfully Managed Endophthalmitis following Strabismus Surgery in Three Patients

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BACKGROUND
• The incidence of periocular infection following strabismus surgery is rare, occurring in 1,100 surgeries.1
• Endophthalmitis following strabismus surgery is even more uncommon, with reported rates ranging from 1.5-3.0 to 1.8-8.0-100 cases.
• Visual acuity rarely improves beyond 20/20.1
• Severe adverse sequelae often occur despite early and aggressive treatment.

PURPOSE
This report describes 3 consecutive patients with severe presumed endophthalmitis following uneventful strabismus surgery.

METHODS
The medical records of 3 consecutive cases of presumed postoperative endophthalmitis following strabismus surgery, diagnosed at a single institution over a 5-month period, were retrospectively reviewed.

RESULTS
1A. B-scan ultrasound, longitudinal view. Anterior vitreal opacities and optic disc elevation
1B. Full thickness scleral perforation and scleral abscess with dehiscence adjacent to the right superior rectus
1C. Rapidly developing cataract noted four weeks post-operatively

CASE 1
A 6-year-old healthy boy

Dramatic surgery performed
• Intravitreal: cefazolin, vancomycin
• Subconjunctival: cefazolin, gentamicin
• Intravenous: meropenem, amikacin, tobramycin

Clinical presentation
• Painless, leukocoria
• Unilateral presumed endophthalmitis

Intraocular findings
• Iris (central posterior synechiae)
• Anterior vitreal sulcus
• Vitreous opacities and anterior vitreal inflammation

Final visual acuity
• OD: 20/20, OS: Hand motion

REFERENCES

DISCUSSION
• Three patients with presumed endophthalmitis all had positive outcomes with a return to their baseline visual acuity.
• Possible reasons for their excellent outcomes include: aggressive early treatment, the use of intravitreal steroids in 2 of the 3 patients, or perhaps that these were not in fact true endophthalmitis cases (no vitreous cultures were positive).
• Intravitreal steroids were utilized in 2 of the patients, under the presumption of decreasing early ocular inflammation, with positive outcomes in both.
• With no established guidelines for corticosteroid use, and with studies reporting both an improvement and worsening in final visual acuity, their use in endophthalmitis treatment remains controversial.2

CONCLUSIONS
This study reports 2 children and one adult who developed presumed endophthalmitis following apparently uneventful strabismus surgery, with all 3 patients returning to their baseline visual acuity.

Support
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