

IVTA Useful in Uveitic Eyes Having Cataract Extraction

In a pilot study of 19 eyes, the incidence of macular edema was markedly reduced.

REVIEWED BY NARCISS OKHRAVI, FRCOPHTH, PHD

Combining intravitreal triamcinolone (IVTA) with phacoemulsification for cataract extraction in eyes with a history of posterior uveitis appears to be a useful treatment option.

Reporting in the *Journal of Cataract and Refractive Surgery*,¹ Narciss Okhravi FRCOphth, PhD, and colleagues from Moorfields Eye Hospital in London, wrote that the incidence of postoperative macular edema was markedly reduced, and levels of visual acuity following cataract surgery, similar to those in eyes without uveitis, were achieved in eyes with posterior uveitis.

Uveitic eyes commonly develop cataracts; an incidence as high as 77.8% has been reported in cases of Fuchs' heterochromic cyclitis and 50% in eyes with pars planitis (see sidebar, Treatment Algorithm for Pars Planitis),²⁻⁴ Miss Okhravi and colleagues wrote. Some investigators have even suggested that the figure approaches 100% with longer follow-up.

UVEITIS MAKES CATARACT SURGERY MORE COMPLICATED

The extraction of cataracts in these eyes can be more difficult technically, and the risk for postoperative exacerbation of inflammation and macular edema is increased. Clinicians recommend controlling intraocular inflammation for ≥ 12 weeks before performing cataract surgery for the best results in visual acuity.⁵⁻⁸ Miss Okhravi and colleagues previously published a study investigating oral corticosteroid prophylaxis for controlling intraocular inflammation. They now sought to determine if intraoperative IVTA would be useful without the adverse effects of systemic therapy.

"We included 19 eyes of 17 patients with posterior uveitis thought to require systemic corticosteroid prophylaxis for cataract surgery," the authors wrote. Seven of the patients had systemic hypertension, and it was thought

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that systemic corticosteroid use would be problematic. Three of these seven patients also had diabetes; all were unhappy with the use of oral corticosteroids.

The mean visual acuity 1 day postoperatively was 20/40 (range, 20/20-counting fingers). At the final follow-up (mean 25.2 months; range 7-41 months) 17 eyes (89.5%) achieved visual acuity of $\geq 20/40$. "Two eyes failed to achieve a final visual acuity of $\geq 20/40$; one as a result of preexisting optic atrophy and the other as a result of macular edema which developed >4 months postoperatively (after the IVTA had left the eye)," Miss Okhravi and colleagues wrote. No patient lost acuity and no eye developed macular edema within 4 months of cataract surgery.

The investigators also reported that postoperative intraocular pressure elevation occurred in three eyes and all three were controlled by topical medication that was discontinued after 3 months of treatment. One patient developed severe intraocular inflammation after surgery that resolved with 1 week of intensive topical corticosteroid therapy, they wrote.

CONTROLLED MACULAR EDEMA

"The reported incidence of macular edema in eyes with uveitis having cataract surgery may be as high as 56%,"^{9,10} the Moorfield's team wrote. "Even with intensive preoperative care and meticulous postoperative management, the incidence has not fallen below 20%."

In the discussion portion of the report, the investigators

TREATMENT ALGORITHM FOR PARS PLANITIS

Uveitis is the third leading cause of blindness in the United States. The prevalence of blindness secondary to uveitis has not changed in the past 40 years. Until increasing numbers of ophthalmologists adopt a philosophy of complete intolerance to even low-grade inflammation chronically, no additional progress will be made in this area. The vast majority of patients are cared for, after all by ophthalmologists in general practice, not by the referral center uveitis specialists. We hope that providing information will stimulate increasing numbers of ophthalmologists in practice to seriously consider taking this last step on the stepladder algorithm of therapy for uveitis and collaborate with chemotherapists in the care of patients whose uveitis continues to be a significant problem despite the more traditional therapeutic approaches.

— C. Stephen Foster, MD, *Ocular Immunology and Uveitis Foundation, Massachusetts Eye Research and Surgery Institute*

Treatment Algorithm for Pars Planitis

Pars planitis may occur as a consequence of systemic disease or it may be idiopathic. Our experience suggests that, at least in a tertiary referral practice, 50% of the cases are idiopathic. Our philosophy regarding a steroid-sparing step ladder algorithm approach to treating pars planitis to accomplish a goal of complete abolition of all active inflammation, regardless of whether or not vision has yet been affected, is associated with significantly less cataract development over the natural history of the patient's disease, and with a better visual outcome because of the prevention of permanent structural damage to macula, with fixed cysts, epiretinal membrane formation, etc.

- We do not use steroid drops instead, the first step on our therapeutic step ladder in the care of patients with idiopathic pars planitis is regional steroid injection therapy. We prefer to inject through the preorbital septum, through the lower lid, in a manner similar to the administration of the peribulbar injection for anesthesia, the difference being that the steroid (40 mg of triamcinolone) is administered through a short 30-gauge needle. Results of studies in our clinic suggest that this approach is equal in efficacy to posterior sub-Tenon's injection technique, is associated with considerably less intraocular pressure elevation, and is much more acceptable to the patient.

- If, after a series of six transeptal steroid injections separated by at least 2 weeks, the patient's pars plana inflammation recurs or continues to recur, we add a systemic nonsteroidal antiinflammatory drug (NSAID).

- Pars plana cryopexy follows, if the patient's inflammation continues to recur despite the use of NSAIDs.

- The choice between systemic immunosuppressive chemotherapy, for example with low dose cyclosporin or with once a week methotrexate, or pars plana vitrectomy depends greatly on the individual circumstance, based on the patient's age, sex, other medical disease, and whether or not the patient is phakic or aphakic. If we choose an immunosuppressive chemotherapeutic agent, we will usually begin with either once a week methotrexate or with systemic cyclosporin (low dose) again, based on the patient's age, sex, and past medical history (eg, a history of liver problems or with renal problems).

Pars planitis is a significant, vision-robbing inflammatory disease that probably should be treated more aggressively than it usually is.

Source: www.uveitis.org/default.html

went on to say that uveitis in the 3-month postoperative period can be associated with increased macular edema. "Once macular edema is present, even with intensive treatment, visual acuity may fail to improve within 6 months in up to 50% of cases."⁶ The investigators said that it follows that if postoperative uveitis and macular edema can be prevented, visual outcomes would improve.

Phacoemulsification with intraoperative IVTA injection appears a reasonable treatment alternative to systemic corticosteroid prophylaxis, the researchers concluded. "In this study, it was found to be safe and efficacious, prevented postoperative macular edema, and permitted the achievement of levels of visual acuity in eyes with uveitis similar to those without uveitis," Miss Okhravi and colleagues said. ■

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