XIPERE InXights
XIPERE Patient Case Study Series

TREATMENT OF POSTSURGICAL CYSTOID MACULAR EDEMA IN A PATIENT WITH REACTIVATION OF PANUVEITIS FOLLOWING IMPLANTATION OF A SCLERAL FIXATED IOL

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Uveitis with concomitant cystoid macular edema (CME) may occasionally occur following either routine or complicated cataract surgery.[1] The exact mechanisms of postsurgical CME remain unclear, but, based on animal studies, they likely involve acute proinflammatory gene and protein changes that take place in the posterior segment in response to lens extraction; these changes activate inflammasomes and the complement system.[2]

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Estimates of the incidence of postsurgical CME differ. Based on a retrospective analysis of patients undergoing cataract surgery in a university-based comprehensive ophthalmology practice in the United States, the incidence of postsurgical CME was 2.35%, with acute CME being the most prevalent type (1.87%).[3] However, in a retrospective chart review of patients undergoing cataract surgery in a private practice in the United States, the cumulative incidence of acute postsurgical CME was shown to be ~0.1%.[1] Additional studies are needed to reconcile these disparate epidemiological findings and better ascertain the true incidence of postsurgical CME.

There is no standardized or consensus treatment protocol for postsurgical CME, largely due to the absence of robust randomized clinical trials and comparative effectiveness studies. However, both topical and intraocular corticosteroids, as well as topical nonsteroidal anti-inflammatory drugs, are common treatment options.[4]

Here, we describe a patient who underwent implantation of a scleral fixated IOL and subsequently developed CME associated with panuveitis, which was then treated with XIPERE® (triamcinolone acetonide injectable suspension) 40 mg/mL. The patient showed normalization of retinal anatomy 1 month after XIPERE treatment and reported good satisfaction with the results.

INDICATION

XIPERE® (triamcinolone acetonide injectable suspension) for suprachoroidal use is a corticosteroid indicated for the treatment of macular edema associated with uveitis.

IMPORTANT SAFETY INFORMATION

Patients should be monitored following injection for elevated intraocular pressure.
See Dosage and Administration instructions in full Prescribing Information.

Please see additional Important Safety Information throughout and accompanying full Prescribing Information.

XIPERE®
(triamcinolone acetonide injectable suspension) 40 mg/mL

Case Report: Postsurgical CME in a Patient With Reactivation of Panuveitis Following Implantation of a Scleral Fixated IOL

BACKGROUND: The patient was a 65-year-old white male. He had controlled diabetes mellitus but reported good overall health otherwise. The patient's medical history included flares of panuveitis and CME, which were treated with dexamethasone intravitreal implants, as well as adalimumab. The patient was pseudophakic. However, the patient's IOL had recently become dislocated, which necessitated exchange with a scleral fixated IOL.

DIAGNOSIS: Following implantation of the scleral fixated IOL, the patient reported a decline in vision. SD-OCT imaging revealed the presence of CME (**Figure 1A**). Based on these imaging findings, a suspicion of increased vascular permeability, and the patient's history of panuveitis, the patient was diagnosed with postsurgical CME associated with panuveitis. This episode of CME and panuveitis was considered to be a reactivation of the patient's historical panuveitis.

TREATMENT: The patient was initially treated with difluprednate ophthalmic emulsion 0.05% 4 times daily for 1 month, but no clinical response was observed. Therefore, as a next step, the patient was administered a single injection of XIPERE. After 1 month, the patient's vision had normalized, and no evidence of CME was apparent on SD-OCT. The patient reported feeling "super happy" about the injection experience and the status of his visual function post treatment. Additionally, there was no recurrence of CME after 24 weeks (**Figure 1B**).

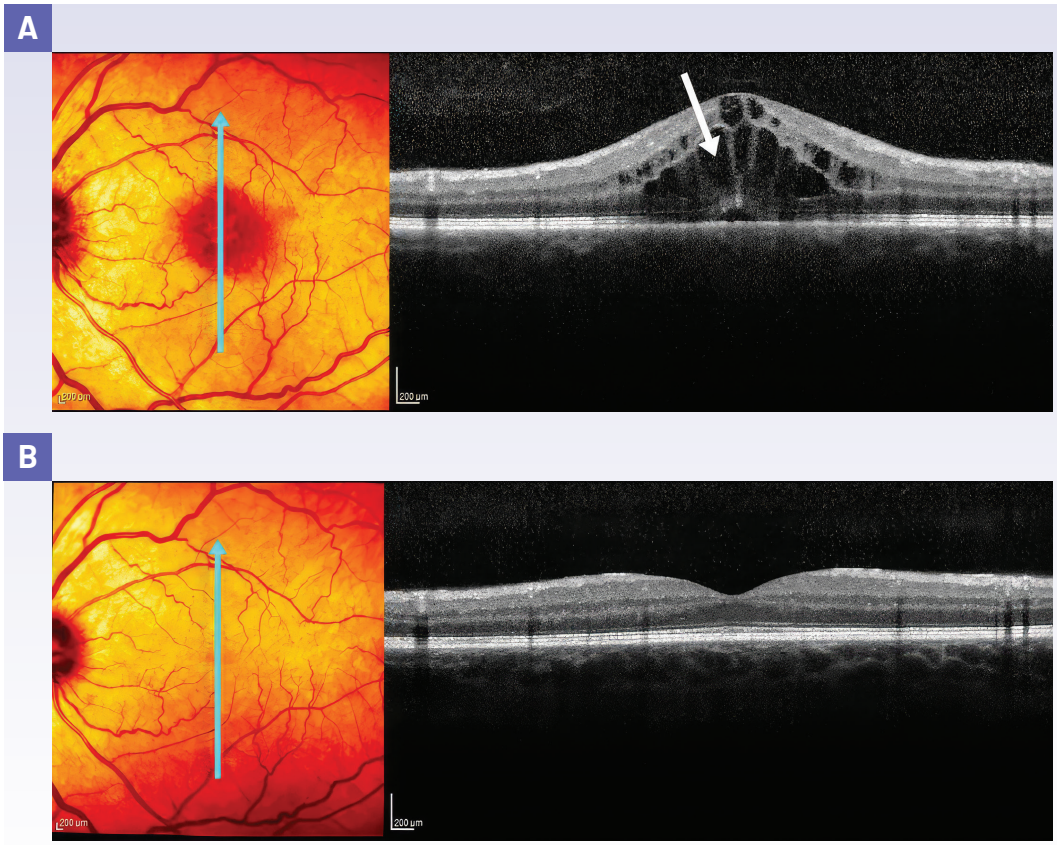

Figure 1. Assessment of retinal anatomy using SD-OCT. (A) Before XIPERE treatment. Postoperative CME is indicated by the white arrow. (B) 24 weeks after a single XIPERE injection. Note resolution of CME and a normal foveal contour.

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WHY XIPERE®?

Topical difluprednate was inadequate to treat this patient's postsurgical CME associated with panuveitis, necessitating another treatment option; however, systemic immunosuppression was contraindicated due to comorbid diabetes mellitus. Therefore, this patient was considered a good candidate for an ocular corticosteroid injection. Intravitreal dexamethasone implants were excluded from consideration due to the patient's sutured lens and the possibility of corneal damage caused by migration of the implant into the anterior chamber. Sub-Tenon injection of triamcinolone acetonide was considered, but not selected due to the absence of convincing clinical data showing that sub-Tenon delivery would provide a durable clinical effect. Ultimately, suprachoroidal delivery of XIPERE was selected due to the strong clinical evidence-base in favor of its use in the treatment of macular edema associated with uveitis.

The efficacy of XIPERE was assessed in a 6-month, randomized, multicenter, double-masked, sham-controlled study in patients with macular edema associated with anterior-, intermediate-, posterior-, or pan-uveitis (PEACHTREE); patients were treated at baseline and Week 12.[5,6] In PEACHTREE, a statistically significantly greater proportion of patients treated with XIPERE achieved a ≥15-letter improvement in best-corrected visual acuity than control patients at Week 24 (47% vs 16%, respectively; $P<0.01$).[5] In a noninterventional extension study of PEACHTREE, called MAGNOLA, XIPERE was shown to provide durable efficacy with the potential to last up to a year, following 1 or 2 injections.[7] The most common adverse reactions reported by ≥10% of patients and at a rate greater than control included elevated intraocular pressure and eye pain.[5]

CONCLUSIONS

Postsurgical uveitis leading to CME occurs in a small subset of patients following cataract surgery.[1] A variety of treatment options are available for the management of postsurgical CME, including topical corticosteroids, intraocular corticosteroids, and topical nonsteroidal anti-inflammatory drugs.[4] This case study describes a patient who underwent implantation of a scleral fixated IOL, leading to reactivation of panuveitis and development of postsurgical CME. After showing inadequate response to topical difluprednate, the patient was treated with a single injection of XIPERE. One month later, the patient showed normalization of retinal anatomy and satisfaction with the treatment experience.

IMPORTANT SAFETY INFORMATION (CONT'D)

- XIPERE® is contraindicated in patients with **active or suspected ocular or periocular infections** including most viral diseases of the cornea and conjunctiva, including active epithelial herpes simplex keratitis (dendritic keratitis), vaccinia, varicella, mycobacterial infections, and fungal diseases.
- XIPERE® is contraindicated in patients with known **hypersensitivity to triamcinolone acetonide** or any other components of this product.
- Use of corticosteroids may produce cataracts, increased intraocular pressure, and glaucoma. Use of corticosteroids may enhance the establishment of secondary ocular infections due to bacteria, fungi, or viruses, and should be used cautiously in patients with a history of ocular herpes simplex.

Please see additional Important Safety Information throughout and accompanying full Prescribing Information.

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IMPORTANT SAFETY INFORMATION (CONT'D)

- Hypothalamic-pituitary-adrenal (HPA) axis suppression, Cushing's syndrome, and hyperglycemia can occur following administration of a corticosteroid. Monitor patients for these conditions with chronic use.
- In controlled studies, the most common ocular adverse reactions were increased ocular pressure, non-acute (14%), eye pain, non-acute (12%), cataract (7%), increased intraocular pressure, acute (6%), vitreous detachment (5%), injection site pain (4%), conjunctival hemorrhage (4%), visual acuity reduced (4%), dry eye (3%), eye pain, acute (3%), photophobia (3%), and vitreous floaters (3%), and in 2% of patients: uveitis, conjunctival hyperaemia, punctate keratitis, conjunctival oedema, meibomianitis, anterior capsule contraction, chalazion, eye irritation, eye pruritus, eyelid ptosis, photopsia, and vision blurred.

  The most common non-ocular adverse event was headache (5%).
- Corticosteroids should be used during pregnancy or nursing only if the potential benefit justifies the potential risk to the fetus or nursing infant.

To report SUSPECTED ADVERSE REACTIONS, contact Bausch + Lomb at 1-800-321-4576 or FDA at 1-800-FDA-1088 or visit www.fda.gov/medwatch.

Please see additional Important Safety Information throughout and full Prescribing Information here.

References: 1. Packer M, Lowe J, Fine H. Incidence of acute postoperative cystoid macular edema in clinical practice. *J Cataract Refract Surg*. 2012;38(12):2108-2111. **2.** Xu H, Chen M, Forrester JV, Lois N. Cataract surgery induces retinal pro-inflammatory gene expression and protein secretion. *Invest Ophthalmol Vis Sci*. 2011;52(1):249-255. **3.** Henderson BA, Kim JY, Ament CS, Ferrufino-Ponce ZK, Grabowska A, Cremers SL. Clinical pseudophakic cystoid macular edema. Risk factors for development and duration after treatment. *J Cataract Refract Surg*. 2007;33(9):1550-1558. **4.** Guo S, Patel S, Baumrind B, et al. Management of pseudophakic cystoid macular edema. *Surv Ophthalmol*. 2015;60(2):123-137. **5.** XIPERE® (triamcinolone acetonide injectable suspension) [package insert]. Bridgewater, NJ: Bausch & Lomb Incorporated; 2022. **6.** Yeh S, Khurana RN, Shah M, et al. Efficacy and safety of suprachoroidal CLS-TA for macular edema secondary to noninfectious uveitis: phase 3 randomized trial. *Ophthalmology*. 2020;127(7):948-955. **7.** Khurana RN, Merrill P, Yeh S, et al. Extension study of the safety and efficacy of CLS-TA for treatment of macular oedema associated with non-infectious uveitis (MAGNOLIA). *Br J Ophthalmol*. 2022;106(8):1139-1144.

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