

Three Pearls for Surgery in Uveitis Patients



Addressing these important questions can help to ensure a positive outcome.

BY LISA J. FAIA, MD

The main indications for surgical intervention for patients with uveitis are the same as those for any patient: to correct a visually significant or vision-threatening etiology. Additionally, interventions may be helpful to elicit a diagnosis or as a form of inflammatory control.

The keys to success with any surgery include a thorough preoperative evaluation, an accurate diagnosis, a proper surgical plan, and a meticulous approach. For surgery in patients with uveitis, additional steps include good preoperative control of the inflammation and a plan for escalation of inflammatory control before surgery to better ensure success. Postoperatively, surgeons must be ready to recognize, as early as possible, any reactivation of inflammation and treat it to ensure that it does not escalate beyond control.

This article discusses three questions you must address before operating on a patient with uveitis:

1. How much do you have to peel if a retinectomy is ultimately necessary?
2. When is “quiet enough” enough for surgery?
3. Is escalation of immunomodulation always needed before surgery?

HOW MUCH DO YOU NEED TO PEEL?

When a patient with uveitis presents with a retinal detachment, whether tractional, rhegmatogenous, or combined, surgeons often recognize that a retinectomy may be necessary. This is particularly common for retinal detachments associated with acute retinal necrosis. The retina is thin and tenacious and, even under perfluorocarbon liquid (PFCL) or sodium hyaluronate (Healon GV, Johnson & Johnson), it remains contracted. Determining how best to perform the retinectomy—where to cut, how much retina is viable—can be a challenge.

The surgeon should start posteriorly, peeling as much as possible to preserve the retina and to avoid leaving a platform for continued inflammation. Peeling as much as possible before cutting also allows the surgeon to use the

traction as a “third hand” to create countertraction for further delamination of membranes.

Sodium hyaluronate is a useful tool for countertraction, as it shows the location of the remaining retinal contraction and it can be easily removed, even if it goes subretinal.

In uveitic patients, bleeding is the enemy, even more so than in noninflammatory detachments. The inflammation is an issue, and hemostasis must be achieved (Figure). To watch a successful retinal detachment repair in a patient with uveitis, visit bit.ly/FAIA1.

HOW QUIET DOES THE EYE HAVE TO BE?

In an ideal world, the eye would be completely quiet—meaning no cell, haze, macular edema, vasculitis, etc.—for 3 full months prior to surgery. One of the most common structural complications of uveitis is macular edema.¹⁻³ Unfortunately, this may represent permanent damage, and it may never fully resolve. Thus, surgeons should reduce macular edema as much as possible before surgery, even though

AT A GLANCE

- When peeling membranes in a uveitic eye, start posteriorly and peel as much as possible to preserve the retina and avoid leaving a platform for continued inflammation and scar tissue formation.
- Prior to surgery, reduce macular edema as much as possible, even though it may be difficult to appreciate the full extent of the edema.
- Once the eye has been quiet for 3 months without escalation of therapy, consider adding prophylactic immunomodulation before proceeding to surgery to avoid future pitfalls.

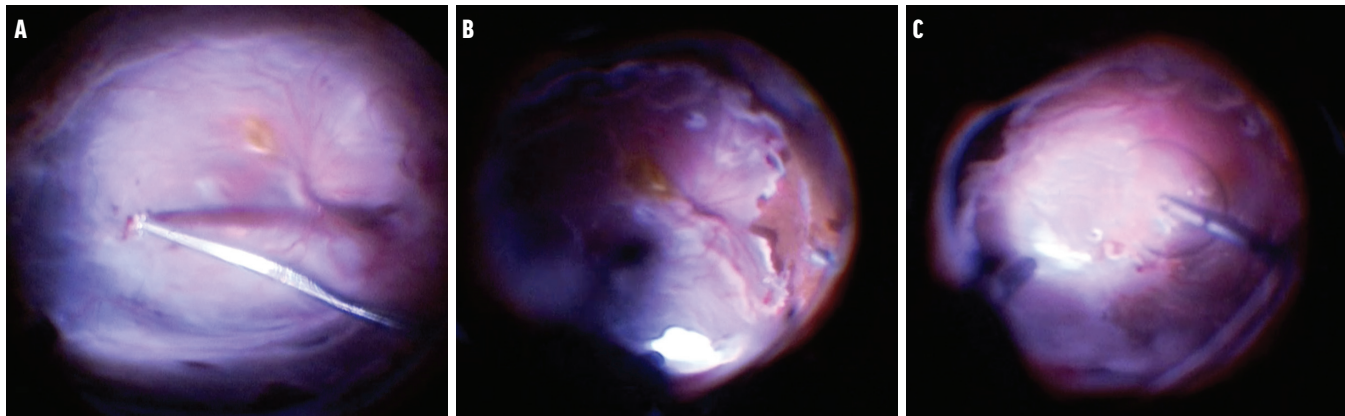


Figure. A 50-year-old woman who developed a combined tractional/rhegmatogenous retinal detachment after stopping her immunomodulation underwent a penetrating keratoplasty and retinal detachment repair. After a temporary keratoprosthesis, a funnel detachment is seen and forceps are used to delaminate the anterior membranes (A). After extensive peeling, a retinectomy is performed while sodium hyaluronate remains in place (B). After the retinectomy, the sodium hyaluronate is removed, PFCL is inserted into the eye, and the retina flattens (C).

it may be difficult to appreciate the full extent and meaning of the edema. Because systemic immunomodulation, other than oral prednisone, requires at least 4 to 6 weeks to take effect, surgery before 6 weeks would be premature.

There are times when surgeons must operate on a “hot eye,” such as for endophthalmitis, retinal detachment, or diagnostic vitrectomy. In these instances, surgeons must proceed cautiously and make every effort preoperatively, perioperatively, and postoperatively to eliminate inflammation. No significant cell or haze should be present.

IS ESCALATION OF IMMUNOMODULATION NEEDED?

Once the eye has been truly quiet for 3 months without any escalation of therapy, surgeons should consider adding prophylactic immunomodulation before surgery to avoid future pitfalls. The amount of escalation does not have to be profound—consider starting with a one-step increase above what the patient needs for quiescence. For example, if a patient needs only topical therapies for control, a preoperative or perioperative sub-Tenon injection of triamcinolone or intravitreal injection of preservative-free triamcinolone or a dexamethasone implant may be all that is required. If steroid injections are not plausible, as is the case for glaucoma patients and steroid-responders, consider oral steroids, usually 0.5 mg/kg started 3 days before surgery and tapered by 5 mg to 10 mg each week until the patient is back to baseline.

For patients on systemic medications there are two prophylactic treatment options:

1. Temporarily increase their systemic immunomodulation at least 4 weeks before surgery, maintain the increased amount for at least 3 months after the procedure, and then taper down to the original amount, or
2. prescribe oral steroids if this is an option. Usually, patients do not require more than 60 mg oral prednisone. Again, generally start 3 days before surgery and taper by 5 mg to 10 mg each week postoperatively.

In addition to the patient’s current antiinflammatory regimen, there are other factors to consider when discussing a preoperative increase in immunomodulation. For example, the extent of the surgery plays into the formula. The amount of preoperative protection for cataract surgery may be less extensive than that for an epiretinal membrane peel or retinal detachment repair in the same eye.

Beware, however: Even if the patient’s uveitis has been quiet for years, preoperative protection against inflammation is worthwhile because even minimal manipulation can cause a reactivation.

TAKEAWAYS

Caring for a patient with uveitis can be challenging, and when a surgical intervention is necessary the disease can be even more difficult to handle. These cases require meticulous care before, during, and after retinal procedures. When it comes to quiescence, be patient; when it comes to preventing postoperative inflammation, be aggressive. ■

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