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Feature Story

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Dealing with extremely anxious patients during LASIK

By Brad Elkins, MD

Brad
Elkins

On rare occasion, one will encounter a patient who has extreme anxiety, if not an outright phobia, with his eye examination. Not only will he refuse all drops, citing agitation and fear, but also there is absolute defiance toward any tonometry or touching of the eyelids. Contact lenses? Not a chance. LASIK surgery? No way. Well, maybe.

We have all performed cataract surgery on these types of patients utilizing general anesthesia or, in the more recent past, with a Diprivan (propofol, AstraZeneca) drip. With the advent of Diprivan, cataract surgery can quickly and easily be performed even in the most extremely anxious patients.

Our pediatric colleagues perform exams under anesthesia routinely and without hesitation. One wouldn't hesitate to use Diprivan to perform a lower eyelid blepharoplasty. In fact, there is an entire subspecialty within dentistry that utilizes conscious sedation. Furthermore, there is an abundance of literature on LASIK surgery in the pediatric population utilizing general anesthesia. However, I have yet to read anything in the literature on using Diprivan in adults for performing LASIK.

Ironically, we all have had patients who became agitated or completely uncooperative after we have already started their LASIK. During these difficult cases, the surgeon, whose pulse is racing as fast as the excimer fires, often thinks, "I wish I had an anesthesiologist right now to sedate this patient!" These markedly uncooperative patients can have suboptimal results secondary to movement during flap creation and poor fixation during the ablation. What I am recommending is actually a much safer way of treating such patients, if they can be identified before surgery.

Once carefully consented, these patients can be the most ecstatic and gratifying people in one's practice. It's almost as if they had given up hope of discarding their glasses. In the past 14 years of having a practice specializing in LASIK and cataract surgery, I have performed LASIK using Diprivan anesthesia on two such patients. Both were in their early 30s. Neither ever tried contact lenses because of the "fear of something getting near their eyes." Just getting close to their eyelids would lead to panic. They infrequently scheduled examinations because of anxiety. Both were moderate-to-high myopes who had never even considered the surgery until I offered them the option of performing the surgery with an anesthesiologist present.

Preoperative preparation

The usual and customary testing is done. With the availability of Pentacam (Oculus) and Orbscan (Bausch + Lomb), corneal thickness is easily obtained without applanation pachymetry. Schirmer's testing may not be possible, so the customary tear film, meibomian gland and external exam are even more critical. Pupil size should still be documented even with a penlight if the patient is intolerant of formal pupillometry.

Consent

These patients certainly do not want to hear any details of the procedure. However, they do need to have the risks of infection, complications and even blindness explained carefully, as one would with any LASIK patient. Furthermore, they need to be explained the risk of anesthetic-related complications.

Anesthesia

These cases should be done in a laser center that is adjacent to a surgery center so that if there is an anesthetic-related complication, the patient can receive appropriate care. The patient fasts for 6 hours before the procedure. A board-certified anesthesiologist is used. The details of the case should be explained to the anesthesiologist ahead of time. Ideally, the anesthesiologist can watch an earlier case so that he or she becomes familiar with what will be done. All appropriate equipment, medication and monitoring devices should be available.

An intravenous line is started, and Versed (midazolam, Merck) is administered to relax the patient. Oxygen is administered through a nasal cannula. Pulse oximetry is obtained. EKG leads are placed. Vitals are followed with blood pressure, respirations and pulse recorded, as with any similar intraocular or extraocular surgical procedure. Gas anesthesia is a poor choice because of case reports of nitrous oxide interfering with the argon fluorine excimer laser. A Diprivan drip is the perfect sedative because of its rapid induction time and easy ability to titrate the dose. Once the "drip" is turned off, the patient rapidly returns to normal.

Intraoperative procedure

The usual prep is done. Draping of the lashes and placing the lid speculum are best done after the patient is unresponsive. If using an IntraLase femtosecond laser (Abbott Medical Optics), it must be in the same room as the excimer laser because the patient will be immobile for the entire procedure.

The trickiest part of the procedure is tracking. It is impossible to preoperatively place limbal marks for astigmatism alignment. Thus, preoperatively noting iris or limbal landmarks can be helpful. I used the Visx laser (AMO) on both patients with outstanding results, but there may be some advantage to using a laser with an active tracker.

Using toothed forceps or globe fixation devices can be critical for fixation. One of my two patients became a bit "lighter" as I was beginning the excimer portion of the surgery on the second eye. She was actually very cooperative with fixating on the fixation light.

Checking the flap for alignment, fibers and debris is critical before completion, because it will be extremely difficult to do anything postoperatively without subjecting the patient to another round of anesthesia. The goggles are placed before stopping the Diprivan drip and exiting the laser suite.

Postop

As with any ophthalmic procedure, the anesthesiologist or recovery room nurse monitors the vital signs, gives the patient something to drink, removes the IV and discharges the patient when ready. Carefully explaining instructions to family or friends is important. These patients will struggle with their postoperative drops. I have explained preoperatively to the patient and family and friends the best way to administer eye drops. I like to have the patients lie down supine with their eyes closed. The drops are placed in the medial canthal area while their eyes are closed. The patient is instructed to open his or her eyes after the drops have been placed I the medial canthal "trough." After opening his or her eyes, if the patient does not feel any drop getting into the eye, this needs to be repeated until something is felt.

I hope this article will encourage my colleagues to try this procedure. There are countless people who are terrified of having their eyes examined, let alone having LASIK. Offering an anesthesiologist to such patients can enable LASIK to be as life-changing an event as it has been for the rest of us.

Brad Elkins, MD, can be reached at Ophthalmology Associates of the Valley, 16311 Ventura Blvd., Suite 750, Encino, CA 91436; 818-990-3623; e-mail: strybr@aol.com.