

# Expulsive Hemorrhage

BY JAMES P. GILLS, MD

In 1978, I participated in a symposium that focused on techniques for extracapsular cataract extraction. I had been asked to perform a corneal transplant, cataract extraction, and cyclodialysis on a female patient with congenital interstitial keratitis, glaucoma, and a totally mature cataract live in front of 200 surgeons. The cataract was completely brunescient, the IOP was uncontrolled, and, in my opinion, the patient's prognosis was poor.

## THE CASE

The beginning of the surgery was uneventful. I removed the cornea with a 7-mm trephine and created the capsulorhexis. The situation became more interesting as I ran into difficulty removing the brunescient cataract through the 7-mm incision. When I finally completed the extraction, the pupil was nicely rounded and dilated. Then, I placed a three-piece Sinsky lens (Katena, Inc., Denville, NJ) in the bag. I performed a 1.5-mm cyclodialysis cleft superiorly temporally.

At that point, the bleeding due to the cyclodialysis started, but I was able to control it with gentle pressure. I had just released that pressure and was preparing to suture the 7.5-mm corneal graft when the bleeding began again. Suddenly, the choroid started to hemorrhage. In only a couple of seconds, the IOP skyrocketed (ie, too high to measure), the posterior capsule pushed forward, and the IOL was expelled through the trephinated opening. The anterior chamber flattened, and the eye became hard as a rock. As my adrenaline surged, I quickly placed my thumb on the trephinated area and applied firm pressure. I instructed my scrub technician to move the lid retractors farther apart. With considerable and careful dissection, I opened the conjunctiva and performed a sclerotomy at the equator behind the cyclodialysis.

The hemorrhage slowly resolved after about 20 minutes of steady, firm pressure and drainage. When I sutured the graft and the IOP returned to normal, I was able to replace the IOL in the posterior capsule. Everything seemed to be coming together when, suddenly, the bleeding resumed, the eye became rock hard due to spiking IOP, and the lens

was expelled for a second time. Amazingly, the posterior capsule was still intact. I reapplied even pressure to the incision for about 30 minutes while draining the kissing choroidal hemorrhage three times.

Time seemed to stand still. In reality, more than an hour elapsed as my team and I fought this choroidal hemorrhage. Finally, I inserted the lens, and the IOP stabilized. I sutured the cornea into place and was able to reform the anterior chamber.

The entire procedure lasted more than 2 hours. When I finally emerged from the OR into the auditorium to receive questions, I was greeted with a standing ovation. My job had been to demonstrate my extracapsular surgical technique. Instead, I delivered a course on managing choroidal hemorrhage.

## CONCLUSION

Although the preoperative visual prognosis for the patient was poor, her postoperative visual acuity was as good as I could have hoped. Amazingly, the choroidal hemorrhage had not exerted a significantly negative effect on her final visual outcome.

The case taught me a great deal that I was able to share with my fellow surgeons. Ophthalmologists should apply pressure over an area of corneal transplant in the event of a spike in IOP. All involved with this type of surgery should be aware that eyes with corneal transplants are at increased risk for choroidal hemorrhages. In this situation, surgeons should never give up on stanching the bleeding. If properly managed, the posterior capsule can be saved when there is a choroidal hemorrhage. Lastly, an IOL can be implanted once the IOP is controlled. ■

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