A LASER LOVE AFFAIR

Why I rely on my femtosecond laser for cataract surgery.

BY AUDREY R. TALLEY ROSTOV, MD

Whenever I have added femtosecond laser technology to my surgeries, I have never been disappointed. Approximately 12 years ago, after the technology was introduced for creating LASIK flaps, the process became more reliable, safer, and consistent. Gone were my fears of forgetting to place the safety plate in the microkeratome and inadvertently entering the anterior chamber. Free flaps became a memory. Predictability increased in terms of the flap's size and thickness, and thinner flaps became possible. I do not think that anyone today would choose to create a LASIK flap with a microkeratome rather than a laser.

A couple of years later, I added the femtosecond laser to cornea surgery. I was impressed by the ability to more accurately match the graft-host interface and the faster visual rehabilitation the technology afforded corneal transplant patients. I am still working with the platform to create a better deep anterior lamellar keratoplasty, and I perform laser cornea surgery on 90% of my patients undergoing full-thickness and deep anterior lamellar keratoplasty corneal transplants.

The love affair continues with laser cataract surgery.

ADVANTAGES

I am a very good surgeon, and I can create an excellent capsulorhexis and perform consistent cataract surgery. With the laser, my surgery has become even better, thanks to perfectly centered anterior capsulotomies of consistent size, shape, and centration. This, in turn, improves effective lens position and the implant's centration, especially with premium IOLs.

The laser essentially prechops the cataract, thereby reducing the phaco power required and decreasing endothelial cell loss, which is especially advantageous in patients with previous transplants or early Fuchs dystrophy. Patients who have pseudoexfoliation or other zonular compromise such as trauma or Marfan syndrome also benefit from a laser capsulotomy, which decreases stress on the zonules and allows me to center the anterior capsulotomy on the bag. I have been able to perform laser cataract surgery on patients with a history of radial keratotomy and penetrating keratoplasty as well as those who have intrastromal corneal ring segments, phakic IOLs, and posterior polar cataracts. In addition, I find astigmatic correction via laser corneal relaxing incisions with or without the placement of a toric IOL to be far more accurate than manual corneal or limbal relaxing incisions.

AT A GLANCE

- In the author's experience, the laser allows her to create perfectly centered anterior capsulotomies of consistent size, shape, and centration, which improve effective lens position and the implant's centration, especially with premium IOLs.
- The only step for which she does not use the laser is for the creation of cataract incisions, because she performs 100% bimanual cataract surgery and always needs to enlarge the 1.3-mm incision for the IOL's implantation.
- The author's practice offers laser cataract surgery to every patient.

NO-LASER INCISIONS

The only step in which I do not use the laser is for the creation of my cataract incisions. I perform 100% bimanual cataract surgery, and I always need to enlarge the 1.3-mm incision for the IOL's implantation. In addition, the hand placement for bimanual surgery with the two small incisions can be variable and sensitive to even a small amount of cyclotorsion or a slight shift in the patient's positioning.

PACKAGING

When I first began performing laser cataract surgery, I noted that some of the patients who would benefit the most, such as those with advanced brunescent cataracts or zonular compromise, were also those who could least afford the procedure. We made the decision in our practice to offer laser cataract surgery to all patients at no additional cost. This includes using the laser for the capsulotomy and phacofragmentation but not for astigmatism management. We do not charge additional fees for the laser procedure. We do charge for vision correction packages, however, and a high percentage of vision correction (70%) helps to make this system achievable.

CONCLUSION

Just as the laser supplanted the microkeratome for LASIK, I believe it will become the standard for cataract surgery by

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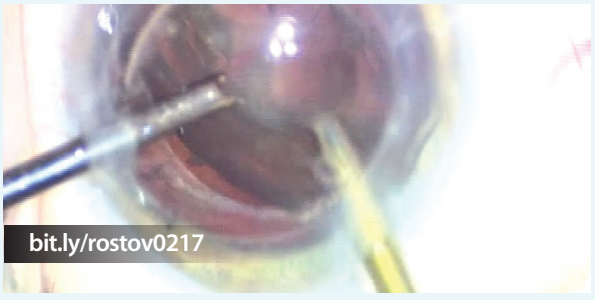
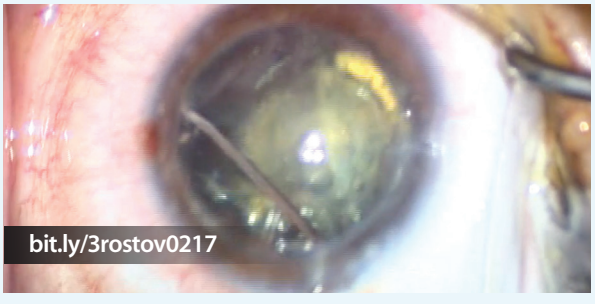
WATCH IT NOW

Audrey Talley Rostov, MD, performs laser cataract surgery with a corneal relaxing incision on an eye with a history of penetrating keratoplasty.



Dr. Talley Rostov uses the laser to create the capsulorhexis in an eye with a history of radial keratotomy.

Dr. Talley Rostov performs laser cataract surgery after penetrating keratoplasty.



increasing the procedure's safety, allowing for a more consistent IOL position, decreasing endothelial cell loss, and making complex cases easier. ■

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