

LACS: BEYOND THE BASICS



Use of the femtosecond laser for key steps in cataract surgery is surely a future direction for many of my fellow ophthalmologists, and newer iterations of such laser systems will continue to promote laser-assisted cataract surgery (LACS) toward being a standard of care. Although its routine use in cataract surgery can be debated, I believe the use of the femtosecond laser in certain complex cases could define its role and its advantages over many experienced and novice human hands.

Having experience with five different femtosecond laser systems for cataract surgery abroad—much of it before any of the technologies received FDA approval—it was clear to me that certain functions of the lasers could make LACS a necessity in specific cases. I have applied this technology in complex cases including white cataract, subluxated cataract, traumatic cataract, preexisting compromised posterior capsular cataract, cataract in nystagmus eyes, and congenital cataract.¹⁻³ Additionally, I have also envisioned its usefulness in combination and staged corneal-cataract techniques.^{4,5} I share a few such complex cases in my article on the following page.

In these and other complex cases, functions such as laser-assisted capsulorrhexis, with its ability to consistently create openings of predictable contour and size,² could help us to overcome the Achilles heel of many challenging cataract surgery cases. It could even possibly be the only determinant between an excellent outcome and a visually detrimental complication.

I do believe that, in some complex cases, not offering patients the option of LACS could be perceived as inadequate informed consent, especially in the digital age. Today's patients educate themselves before their appointments, and they expect their surgeon to know and offer what is in their best interests.

With that intention and future vision, I put together a panel of some of the most talented cataract surgeons in the world who perform LACS and asked them to share their knowledge of femtosecond laser use in complex cases. It is my hope that the following articles will inspire you to consider performing LACS in much more than only routine cases. ■

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1. Gulani AC. Femtosecond laser in refractive lens exchange. In: Wang M, ed. Thorofare, New Jersey: Slack Inc; 2016.

2. Gulani AC. Evaluating the impact of femto laser-assisted capsulotomy. *Cataract & Refract Surgery Today Europe*. 2014;9(9):36-50.

3. Gulani AC. Femtosecond lasers: Are they becoming a necessity in cataract surgery? *Cataract & Refractive Surgery Today*. 2013;13(11):25-26.

4. Gulani AC. Femtosecond lasers in cataract surgery. Paper presented at: the American Society of Cataract and Refractive Surgery annual meeting. April 17-21, 2015; San Diego.

5. Donnenfeld E, Gulani AC. Astigmatism correction during cataract surgery. In: Garg H, Alió JL, eds. *Femtosecond Laser: Techniques and Technology*. 1st ed. Miami, Florida; JayPee Highlights Medical Publishers; 2012;21:155-161.