

IOLS IN GLAUCOMA: EMBRACING THE SPECTRUM

According to physicists, roughly 13.8 billion years ago, the universe began with the Big Bang. Everything we observe today was compressed into a single point of near-infinite density that physicists refer to as a *singularity*. Scientists can describe what happened fractions of a second after the expansion began, but as they work backward toward this singularity, their equations stop cooperating. This point of origin—despite its specificity—is quite difficult to simplify.

With specific disease stages and types, decision-making becomes harder to streamline. We like to sort glaucoma into stages—mild, moderate, and severe—as if it moves along a ruler, but angle closure behaves more like a spectrum that grows at its own pace and in its own direction. Where a patient sits on that spectrum should drive the refractive plan, and that calculation is anything but formulaic.

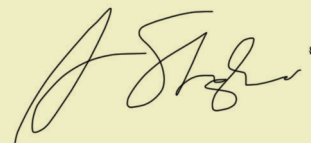
In a preperimetric eye, the nuances pile up quickly. Lens extraction can deepen the angle and lower IOP, which makes the procedure attractive, but IOL selection in these cases gets complicated. The temptation is to offer patients the full spectrum of options, but the data to support every nuanced scenario are nowhere near complete.

In an eye with a central island, the decision narrows. We do not reach for a multifocal IOL. We simplify toward a monofocal lens, a target pressure, and a plan for IOP management. As the disease approaches its own singularity, the choices get clearer in some ways, although much of that clarity comes from caution rather than evidence. Sometimes, the more we know about a specific patient, the less certain the recommended treatments become because there are so many known details to consider.

We cannot predict the expansion. A preperimetric eye today may be a filtering candidate later. Every eye carries its own past and future considerations: a prior trabeculectomy that changed the cornea, a graft that narrowed the treatment options, and the chance that either procedure may be required down the line. A selected IOL must work in both directions.

We surgeons employ a variety of approaches because these scenarios are complicated—the perfect solution has not yet been identified. Each of us settles on the equation that works for us, in our hands, and with our patients. When a problem is complicated, we try to simplify it. That is reasonable, as long as we remember the simplification is a tool and not the truth.

In this issue of *GT*, contributors discuss refractive considerations across the glaucoma spectrum, from preperimetric disease to the central island patient, from open- to closed-angle disease. What seems to be paramount is the need to weigh the disease first. The lens follows, but let's not be so definitive in any solution as a singularity. ■



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