



SCREENING THE FUTURE

BY AVNI SHAH, MD



On a Saturday morning in March, hundreds of people lined up for a free eye screening in a dusty public school auditorium in Newark, New Jersey. It was at least a hundred more people than my fellow volunteers and I were prepared for. Our volunteer telemedicine team—usually consisting of two providers,

two to four medical students, and a truck full of portable equipment—was offering glaucoma screenings at various community sites about 2 weekend days per month, and the turnout this day was particularly strong.

“Go down the line,” I was instructed, “and shine this light right at the limbus of each patient’s eye. If you don’t see the light illuminate on other side, bring the person to the front of the line.” I didn’t realize it at the time, but as a first-year medical student, I was already screening patients for narrow angles!

In the course of dozens of screenings I attended as a medical student, I learned to administer and interpret visual field tests using frequency-doubling technology, operate a pneumotonometer, and evaluate optic nerves on nonmydriatic photographs using the ISNT (inferior, superior, nasal, temporal) rule. I could not believe that a silently blinding disease could be so prevalent and underdiagnosed.

During my first year of ophthalmology residency, on my Veterans Affairs hospital rotation, I quickly learned that there was much more to a glaucoma evaluation and the management of patients with the disease than just IOP and the appearance of the optic nerve. I struggled with applanation tonometry and then gonioscopy. I was unsure how to deal with consistently unreliable visual field tests and the reliably poor adherence to prescribed medical therapy of my well-intentioned patients. Still, I found the relatively stepwise and logical nature of the specialty appealing. It seemed to be something that I could begin to grasp at a time when the field of ophthalmology overall seemed boundless. I learned how to evaluate blebs. My attending surgeons coached me

on the subtler nuances of optical coherence tomography and visual field interpretation.

Now, halfway through my second year of residency, I am starting to trust my gonioscopy skills. I have learned the importance of rapport and observed how a little education goes a long way with patients. This year, I became involved in some clinical research related to glaucoma, which has brought me back to the basics: pathophysiology. Reading through the literature, I realize there are still more questions than answers when it comes to glaucoma.

I am excited to think that, by the time I am in practice, my colleagues and I may find answers to some of those questions. Management may be based on 24-hour IOP monitoring instead of a single measurement every 3 to 6 months. What will we learn, and how will that change our practice? Will the introduction of increasingly less invasive surgical techniques one day make traditional filtering surgery obsolete? How might screening tests change, and how will eye care providers reach the vulnerable members of the community who do not always make it into the exam chair such as the people I met in that Newark auditorium?

I do not see the field of glaucoma as a stagnant way of dealing with an incurable disease. To me, it is another opportunity to do what ophthalmologists all hope to do every day: improve a life by saving sight. ■

Section Editor Albert S. Khouri, MD

■ assistant professor and program director of the ophthalmology residency as well as associate director of the Glaucoma Division at Rutgers New Jersey Medical School in Newark, New Jersey
■ (973) 972-2045; albert.khouri@rutgers.edu

Avni Shah, MD

■ postgraduate year-3 resident, University of Colorado Denver
■ shavnit@gmail.com