GLAUCOMA: AN ENIGMA FOR FIRST-YEAR OPHTHALMOLOGY RESIDENTS

A balanced approach to each case is helpful when treating this complex disease.

BY SUBHASHINI CHANDRASEKARAN, MD

Early in my first year of ophthalmology residency, I had a memorable ER consultation. The patient presented with a severe left-sided headache, eye pain, and tearing, and the only significant finding of his ocular history was pseudophakia OU. He was keeling over in the exam chair, barely able to cooperate because of his pain. On examination, his visual acuity was 20/100 OS, and the pupil was sluggish. The anterior chamber exam found 2+ to 3+ cell in the left eye, and the angle was open on gonioscopy. Surprisingly, the IOP was 18 mm Hg OD and 75 mm Hg OS. Until that time, I had never measured an IOP greater than the low 40s mm Hg. I repeated the measurement three times with applanation tonometry, and the IOP was in the 70s and 80s mm Hg each time. These findings were confirmed with a Tono-Pen (Reichert Technologies) and an iCare tonometer (Icare USA).

Because the patient's IOP was so high, I performed numerous tests and examined him with various imaging modalities. Thankfully, after a few rounds of treatment with latanoprost ophthalmic solution 0.005% (Xalatan, Pfizer), timolol/brimonidine ophthalmic solution 0.2%/0.5% (Combigan, Allergan), brinzolamide ophthalmic suspension 1% (Azopt, Alcon), and acetazolamide 500 mg (Diamox Sequels), the patient's symptoms improved. His IOP, however, was in the 60s to 70s mm Hg. As usual, when discussing the case with my attending, her first questions for me were "What were your findings?" and "What was your differential diagnosis?" I was surprised that, after all that time examining the patient, I was at a loss for words. The experience taught me an important lesson.

FINDING A BALANCE

During residency, we trainees focus on learning every fact and detail so that nothing is missed when it is time to put this knowledge into practice. We spend hours studying pathologies, physical exam findings, and treatments, and we are so immersed in the minute details that we sometimes forget to step back and see the forest for the trees. This is particularly true with glaucoma. Glaucoma is generally an enigma, with some uncertainty surrounding its pathophysiology, origin, and management. For a first-year resident still in the learning phase, the disease is even more of a mystery.

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New residents tend to fall into two groups when examining patients. Some residents keep the clinic moving; they check the patient's IOP and note if it is controlled, update imaging, and inform the patient about future follow-up. Other residents fall into the habit that I fell into; we dive too deep into a case without taking a step back to gather our thoughts. In the case I presented, I had the patient undergo OCT imaging, visual field testing, numerous slit-lamp examinations, and even wide-field fundus photography. Had I taken a step back to think through what

I knew and felt more confident in my examination, I might not have put the patient through so much, especially because, due to his discomfort, most of the diagnostic results were unreliable.

As a first-year resident, it is hard to spend enough time on each case *and* avoid getting lost in the details of an encounter. However, by striking this balance, residents can both gain an understanding of a patient's specific risk factors and disease management and talk to the patient about their condition in a way they will understand.

CONCLUSION

The patient from my memorable encounter was seen again the next day and weekly thereafter. His IOP remained stable in the midteens with no further spikes. Repeat testing showed preserved full visual fields and no thinning of the retinal nerve fiver layer in both eyes. The patient continued to have anterior chamber inflammation, so he began therapy with prednisolone acetate 1% (Pred Forte, Allergan), and his IOP was monitored closely. After a few weeks of treatment, the medication was tapered. The patient's lab work came back negative for human leukocyte antigen B27 and herpes simplex virus, and another uveitis workup was negative. Ultimately, the primary diagnosis was my first case of Posner-Schlossman syndrome (glaucomatocyclitic crisis).

Ophthalmology residency is challenging and involves a steep learning curve. As trainees, we are trying to get a grasp on the material and find our comfort zone. The added challenge of treating patients with a disease as complex as glaucoma can make the situation even more difficult. Early in our residencies, however, striking a balance between diving too deep into one case and letting a busy clinic become overwhelming can help us and our patients. ■

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