Intraoperative aberrometry with the ORA System with VerifEye+ Technology (Alcon, Fort Worth, Texas) has revolutionized my premium cataract surgery practice. I use it on all my toric, multifocal, and accommodating implant cases. I also use it to guide intraoperative astigmatic keratotomy (AK) or guide my opening of femtosecond laser-created AKs.

I’ve experienced an improvement in outcomes in my procedures using the ORA System with VerifEye Technology. What I love about ORA System is that it gives me the true refractive power of the eye in surgery when the eye is in its aphakic state. I still go into the operating room with all of my preoperative calculations, and then I perform the ORA System measurement intraoperatively to either substantiate my preoperative calculations or change my decision.

Because I have been involved in the research and development of the ORA System with VerifEye+ Technology, I have witnessed its hardware and software advancements that have resulted in impressive accuracy, reproducibility, and measurement speed. I have developed a lot of confidence in it, and as a result, we have it on the microscopes in both of our ASC operating rooms. The device’s image capture unit connects to the bottom of the surgical microscope and employs Talbot-Moiré interferometry to measure the refractive power of the eye real time during surgery. When I am at the point in the operation where the patient is aphakic and it is time to choose the ideal implant, the ORA System constantly streaming refractive information provides me with the data; if the VerifEye Technology measurement differs from my preoperative calculations, indicating additional variables, this will influence my final decision.

VerifEye Technology is of great benefit in toric cases because it helps me choose the axis and magnitude of the toric implant and refine that axis intraoperatively. After the toric lens has been implanted, I use the pseudophakic VerifEye+ Technology measurement for adjusting the implant axis inside the eye. It tells me whether or not I need to rotate the lens to a different axis, so it

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Vance Thompson, MD

ORA System with VerifEye+ Technology

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“Because I have been involved in the research and development of the ORA System with VerifEye+ Technology I have witnessed its hardware and software advancements that have resulted in impressive accuracy, reproducibility, and measurement speed.”

improves the accuracy of my toric implants. Even if my preoperative calculations are accurate on the spherical power, it is the astigmatic power and axis due to variables such as incisional effect and posterior astigmatism that are taken into account with the ORA System. This gives me great peace of mind in my toric cases. When the toric implant is in the ideal axis, the ORA System will tell me “no rotation recommended” and give me the final predicted astigmatism, which is typically quite close to plano. This has greatly improved my toric outcomes.

It has also been helpful in post refractive surgery patients, where the calculations can be challenging. For example, when we have a flattened anterior cornea in a laser-corrected myope, our traditional methods of measuring corneal curvature aren’t as accurate as in a virgin cornea. This is why we all get more nervous when we have a post corneal refractive cataract surgery patient, and we want to get as close as possible on the refractive outcome in this patient population who has highly valued being able to do a lot without glasses. Because VerifEye+ Technology takes into account anterior and posterior corneal curvature, it is of great benefit in these cases. In my premium post corneal refractive cataract surgery cases, it is my goal to get them close enough so they do not need another corneal laser enhancement on an often thin cornea (from previous PRK or LASIK), or if they do need an enhancement, it will be a low correction. The ORA System has helped me to achieve this. The VerifEye Technology is now the most common reason I get referrals from other ophthalmologists for post corneal refractive cataract surgery cases.

The third category of patients in whom it is especially useful is premium implant patients, who are trying to hit a specific refractive error because their goal is spectacle independence. The optics of premium implants require hitting a specific refractive target for ultimate patient satisfaction. Having the VerifEye+ Technology there with me to help in the final implant power choice is of great help.

Using VerifEye Technology has greatly reduced our refractive enhancement rate. I like that it now has a dynamic reticle in it. Previously, I would have to stop looking through the microscope and look at the computer screen on the VerifEye Technology cart. Now, I can continue looking through the oculars of the microscope because the dynamic reticle is inside the oculars, and it provides streaming refractive data for alignment information while I am looking through the microscope. This has helped my comfort and efficiency during acquisition of the VerifEye+ Technology data.

VerifEye+ Technology works very well in conjunction with Verion System. What’s nice about the Verion System is that it allows us, prior to the VerifEye+ Technology measurement, to get closer to the target refraction than the manual techniques that we used before Verion System. We are finding that the adjustments that we need to make with VerifEye+ Technology after placement of the implant are less because we have the Verion System guidance.

It has been exciting to work with the VerifEye+ Technology device and see how it has evolved. Alcon has been very responsive in continuing to improve the technology, and the dynamic reticle is just one example of how the ORA System with VerifEye+ Technology is helping us to optimize our cataract refractive outcomes.

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