

CASE STUDY COMPETITION: Can This Patient Reach Spectacle Independence?

At the 2021 American Academy of Ophthalmology meeting in New Orleans, three two-person teams listened to a series of case studies presented by moderator Kerry Solomon, MD. Each team offered its recommendations, while an audience of their peers voted on the best choice. This article covers the first of three cases.

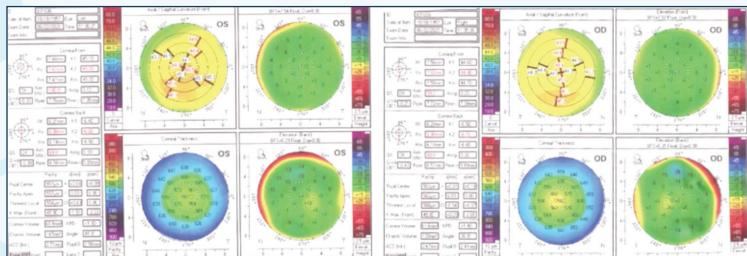


Figure 1. Topographies of cataract patient seeking spectacle independence.

Dr. Solomon: A 62-year-old woman with cataracts wants to be spectacle independent at distance and near. She dislikes wearing glasses while playing golf, but also dislikes her soft contacts. Her uncorrected vision is OD 20/400 and OS 20/80, with bilateral best-corrected vision of 20/30. She has mild astigmatism in both eyes and experiences significant glare. Based on this description and the patient's corneal topographies (Figure 1), what is your treatment plan? Would you choose the Vivity™ lens or the PanOptix® lens (both Alcon)?



TEAM ALPHA

J. Morgan Micheletti, MD: We choose the Vivity™ lens in the dominant eye targeting distance and mini-monovision with the Vivity™ lens in the non-dominant eye targeting -0.5 D.

Neda Shamie, MD: The reason for this choice is that the topography shows a little bit of inferior steepening.



TEAM LIMA

Brian M. Shafer, MD: We also choose the Vivity™ IOL, with a non-toric lens in the right eye and a toric in the left to address 0.75 D of astigmatism against the rule. We will treat distance in both eyes because the patient wants to see the golf ball without contacts. We could do a mini-monovision there, although that would sacrifice a bit of her crisp distance vision. We want her to see that ball all the way.



TEAM CHARLIE

Robert F. Melendez, MD, MBA: If we can rule out ocular surface contribution, we'll put in a PanOptix® lens, but if the ocular surface issues are abnormal, we'll discuss a Vivity™ lens versus mini-monovision.¹



AND THE AUDIENCE CHOOSES ...
TEAM CHARLIE!



Dr. Solomon: Now let's add a few twists. This patient was a successful monovision contact lens wearer, but dry eyes ended that 5 years ago. As Dr. Shamie noted, there is a little inferior steepening. Do these things change your recommendation?



TEAM ALPHA

Dr. Shamie: We're going to stick with the Vivity™ IOL with a mini-monovision approach. A patient with inferior steepening and dry eyes is most definitely still a great candidate for the Vivity™ lens.¹ And with mini-monovision, I've been able to get patients exceptional visual results.



TEAM LIMA

Dr. Shafer: We'll optimize the ocular surface and then check if the patient has any distance blur with plano in the dominant eye and -0.75 in the non-dominant eye. If not, we'll choose the Vivity™ lens plano in the distance eye and the Vivity™ lens -0.75 in the non-dominant eye to give her an excellent balance of vision.



TEAM CHARLIE

Caroline Watson, MD: This patient was a successful monovision contact lens wearer in the past, so for good distance and good near vision, we'll go with monovision again. We'll do distance in the dominant eye and near in the non-dominant eye, targeting -2.37.



AND THE AUDIENCE CHOOSES ...
TEAM CHARLIE!



Dr. Solomon: Given this patient's inferior steepening, dry eyes, and history of monovision success, I opted for the Vivity™ lens. I chose to do full monovision with the non-dominant eye at -1.00. This delivers excellent distance vision because of the extended range.¹ At -1.00, the patient's uncorrected vision was 20/70 distance, 20/25 intermediate, and J2 near. It's important to consider using presbyopia-mitigating lenses in more complex cases like this one.

IN THE SPOTLIGHT: TEAM CHARLIE



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- Financial disclosure: Paid consultant for Alcon



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IMPORTANT PRODUCT INFORMATION - AcrySof® IQ PanOptix® and Vivity Family of IOLs

CAUTION: Federal (USA) law restricts this device to the sale by or on the order of a physician.

INDICATIONS

The AcrySof® IQ PanOptix® Trifocal IOL, AcrySof® IQ PanOptix® Toric, AcrySof® IQ Vivity™ Extended Vision IOL and AcrySof® IQ Vivity™ Toric IOLs are indicated for visual correction of aphakia in adult patients following cataract surgery. In addition, the AcrySof Toric IOLs are indicated to correct pre-existing corneal astigmatism at the time of cataract surgery. The AcrySof® IQ PanOptix® lens mitigates the effects of presbyopia by providing improved intermediate and near visual acuity, while maintaining comparable distance visual acuity with a reduced need for eyeglasses, compared to a monofocal IOL. The AcrySof® IQ Vivity™ lens mitigates the effects of presbyopia by providing an extended depth of focus. Compared to an aspheric monofocal IOL, the lens provides improved intermediate and near visual acuity, while maintaining comparable distance visual acuity. All of these IOLs are intended for placement in the capsular bag.

WARNINGS/PRECAUTIONS: Careful preoperative evaluation and sound clinical judgment should be used by the surgeon to decide the risk/benefit ratio before implanting a lens in a patient with any of the conditions described in the Directions for Use labeling. Physicians should target emmetropia, and ensure that IOL centration is achieved.

For the PanOptix® Toric and Vivity™ IOLs, the lens should not be implanted if the posterior capsule is ruptured, if the zonules are damaged, or if a primary posterior capsulotomy is planned. Rotation can reduce astigmatic correction; if necessary lens repositioning should occur as early as possible prior to lens encapsulation.

For the AcrySof® IQ PanOptix® IOL, some visual effects may be expected due to the superposition of focused and unfocused multiple images. These may include some perceptions of halos or starbursts, as well as other visual symptoms. As with other multifocal IOLs, there is a possibility that visual symptoms may be significant enough that the patient will request explant of the multifocal IOL. A reduction in contrast sensitivity as compared to a monofocal IOL may be experienced by some patients and may be more prevalent in low lighting conditions. Therefore, patients implanted with multifocal IOLs should exercise caution when driving at night or in poor visibility conditions. Patients should be advised that unexpected outcomes could lead to continued spectacle dependence or the need for secondary surgical intervention (e.g., intraocular lens replacement or repositioning). As with other multifocal IOLs, patients may need glasses when reading small print or looking at small objects. Posterior capsule opacification (PCO), may significantly affect the vision of patients with multifocal IOLs sooner in its progression than patients with monofocal IOLs.

For the AcrySof® IQ Vivity™ IOL, most patients implanted with the Vivity™ IOL are likely to experience significant loss of contrast sensitivity as compared to a monofocal IOL. Therefore, it is essential that prospective patients be fully informed of this risk before giving their consent for implantation of the AcrySof® IQ Vivity™ IOL. In addition, patients should be warned that they will need to exercise caution when engaging in activities that require good vision in dimly lit environments, such as driving at night or in poor visibility conditions, especially in the presence of oncoming traffic. It is possible to experience very bothersome visual disturbances, significant enough that the patient could request explant of the IOL. In the AcrySof® IQ Vivity™ IOL clinical study, 1% to 2% of AcrySof® IQ Vivity™ IOL patients reported very bothersome starbursts, halos, blurred vision, or dark area visual disturbances; however, no explants were reported.

Prior to surgery, physicians should provide prospective patients with a copy of the Patient Information Brochure available from Alcon informing them of possible risks and benefits associated with these IOLs.

ATTENTION: Reference the Directions for Use labeling for each IOL for a complete listing of indications, warnings and precautions.