

Tackling Cataract, Keratoconus With the T-Flex IOL

Simultaneous treatment of both conditions is possible with this toric lens.

BY DANIEL BADOZA, MD

Astigmatic patients who present for cataract surgery with keratoconus can be challenging. This potentially progressive corneal pathology is a contraindication for treatment of astigmatism at cataract surgery with limbal relaxing incisions (LRIs) or laser vision correction. The recent introduction of toric IOLs, however, has provided ophthalmologists with a strategy for addressing both conditions.

When treating these cases, I often choose the T-flex Toric IOL (Rayner Intraocular Lenses Ltd.). The customized cylindrical correction on the anterior surface is designed to address preexisting corneal astigmatism. The T-flex Toric, implanted through a 2.5-mm incision using a single-use disposable injector, can be easily oriented in the desired axis. Its 360° enhanced square-edge design minimizes risk of posterior capsular opacification. The T-flex Toric IOL has excellent rotational stability and provides predictable visual outcomes.

PERSONAL EXPERIENCE

I recently implanted the T-flex Toric IOL in a series of six eyes of five women (mean age, 61.4 years) with keratoconus and severe astigmatism (Figures 1 through 3). I advised patients wearing rigid contact lenses to stop lens wear at least 3 to 4 weeks before the preoperative

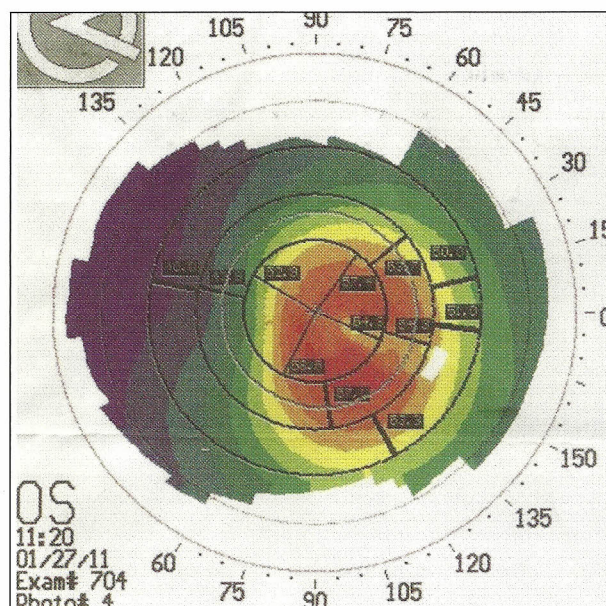


Figure 1. Corneal topography showing keratoconus.

assessment. At the time of assessment, the mean spherical equivalent was -16.80 D (range, -11.00 to -24.50 D), and mean cylinder was 4.50 D (range, 3.00 to 6.00 D). BCVA ranged from 20/60 to 20/100. I used the RayTrace program (www.toriclens.rayner.com/; Rayner Intraocular Lenses Ltd.) to calculate IOL power. In this series, the mean spherical power of the IOLs was -3.50 D (range, 1.50 to -9.00 D), and the mean cylindrical correction of the implanted IOLs was 7.20 D (range, 4.25 to 11.00 D).

After a minimum of 1-month follow-up, all patients showed remarkable refractive improvement, and UCVA ranged from 20/20 to 20/40. All patients reported being able to carry out most of their daily activities, including driving without need for extra refractive correction

TAKE-HOME MESSAGE

- In patients with keratoconus, astigmatism should not be corrected with limbal relaxing incisions or laser vision correction.
- The customized cylindrical correction on the anterior surface of the T-flex Toric IOL is designed to address preexisting corneal astigmatism.

CATARACT SURGERY FEATURE STORY

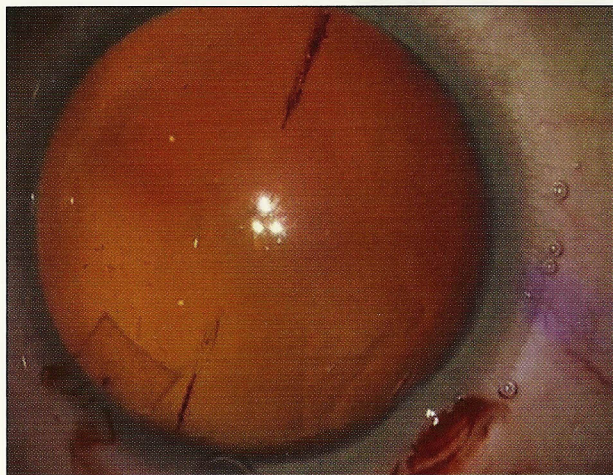


Figure 2. The axis of orientation is marked according to the preoperative calculation.

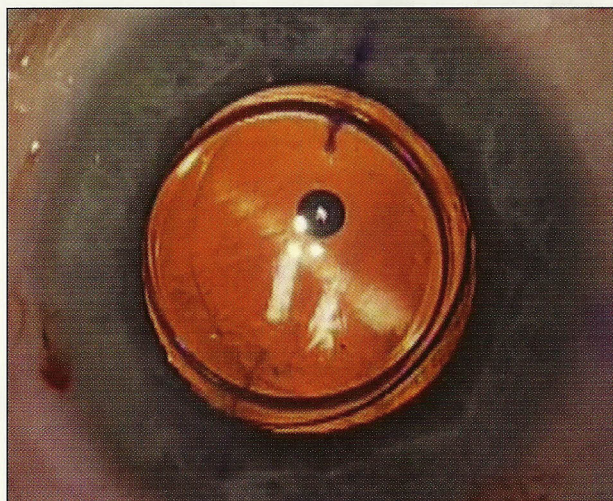


Figure 3. The IOL is implanted according the axis of orientation.

from glasses or contact lenses. This improvement was seen as early as postoperative day 1 and improved slightly thereafter.

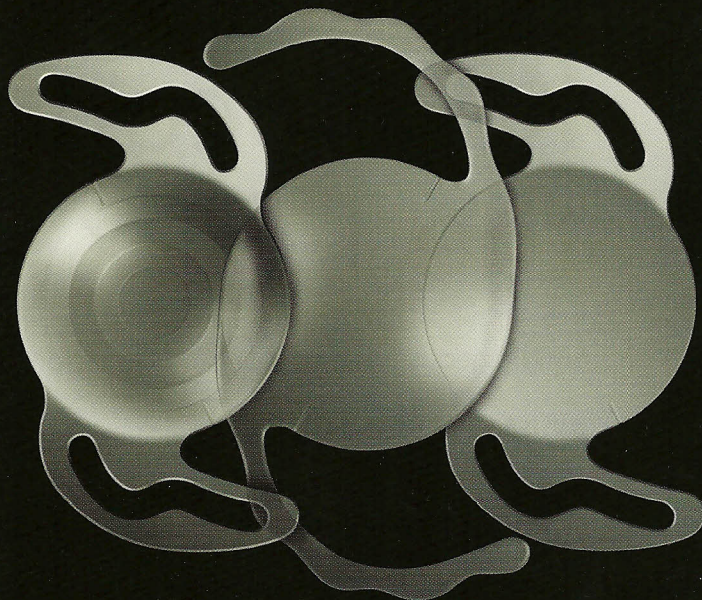
CONCLUSION

I was unsure if my results would be as good as expected with the T-flex Toric IOL. But after seeing the results in this series of patients, I am no longer hesitant to use this lens to correct astigmatism at the time of cataract surgery in patients with keratoconus. ■

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