

Retrospective Case Series of Patients Implanted with a Low-Powered Toric Monofocal IOL with an Enhanced Optic

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Advisor	Bausch and Lomb, Bruder Healthcare, Cassini Technologies, Dompe, ESWIN, Guardion Health Sciences, LENSAR, Rayner, Sight Sciences, Sun Pharmaceuticals, Tarsus, Viatris, Zeiss
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Purpose



Background

- Many patients have some degree of corneal astigmatism; even mild amounts of astigmatism can impact post-operative visual outcomes following cataract surgery¹
- Arcuate incisions or corneal incisions can reduce small amounts of corneal astigmatism during cataract surgery, although toric IOLs are more predictable and less invasive²
- enVista ASPIRE Toric IOL (ETA, Bausch + Lomb, Inc.) is designed to provide a continuous depth of focus from distance to intermediate with an intermediate 1.5 mm central zone³

Aim

This case series aims to present real-world clinical outcomes of patients implanted with a low-powered toric (1.25D) EA IOL to correct for mild corneal astigmatism



Methods



Study Design

- This retrospective case series includes a single surgeon's experience implanting ETA between 23 January and 23 April 2024
- All eyes were implanted with the lowest-powered ETA (1.25D) to correct for mild corneal astigmatism
- ETA 1.25D was implanted in 9 eyes of 8 patients (4 OD, 3 OS, 1 OU)
 - 4 patients underwent bilateral implantation with an ETA lens $> 1.25D$ in their fellow eye

Outcome Measures

- Delta K (pre-operative)
- Spherical and cylinder refractive outcomes
- BCDVA, UDVA, UIVA

Results



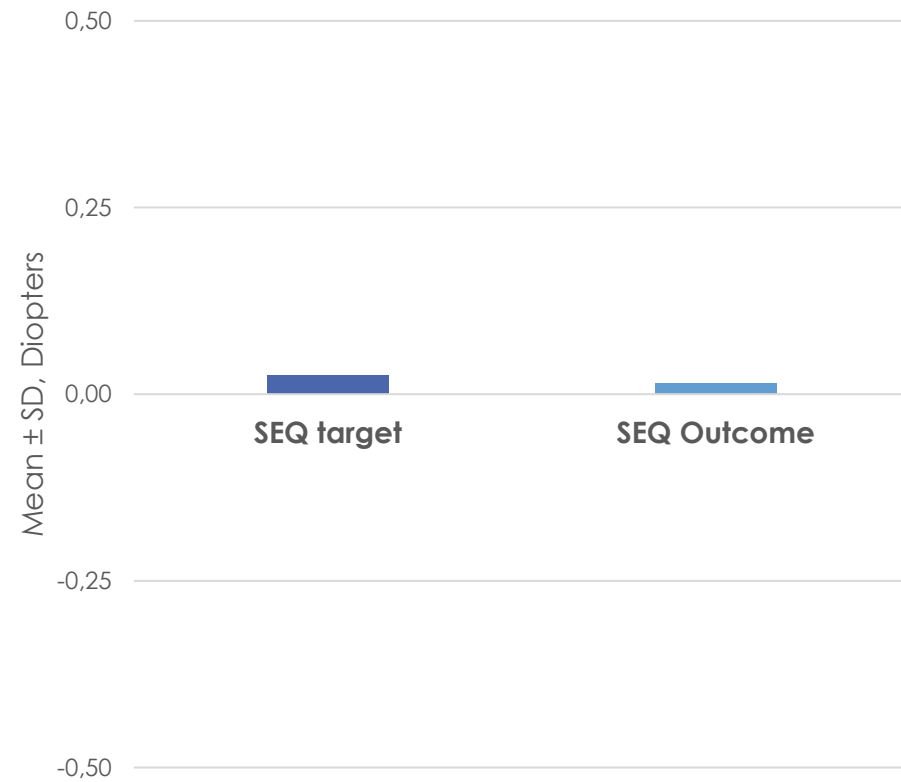
Baseline Characteristics

Characteristic (mean $\pm$ SD)	N=9
SEQ target	0.03 $\pm$ 0.27
Flat K	42.9 $\pm$ 1.5
Steep K	43.6 $\pm$ 1.4
Delta K	0.78 $\pm$ 0.28

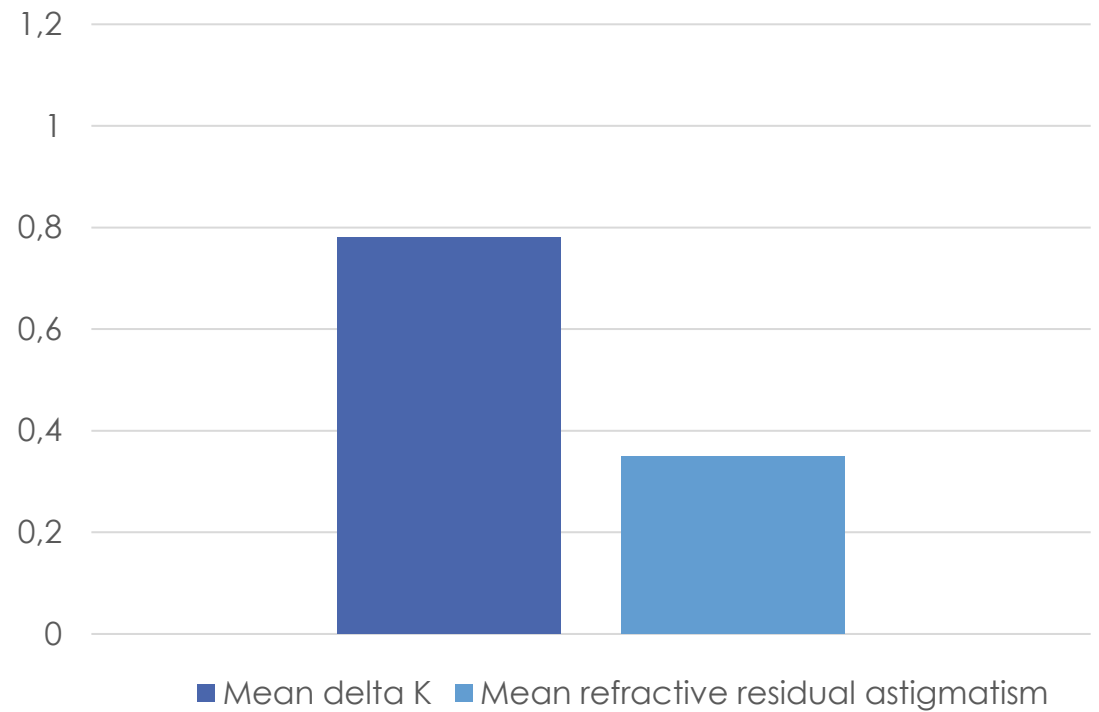
Results



SEQ Target and SEQ Outcome



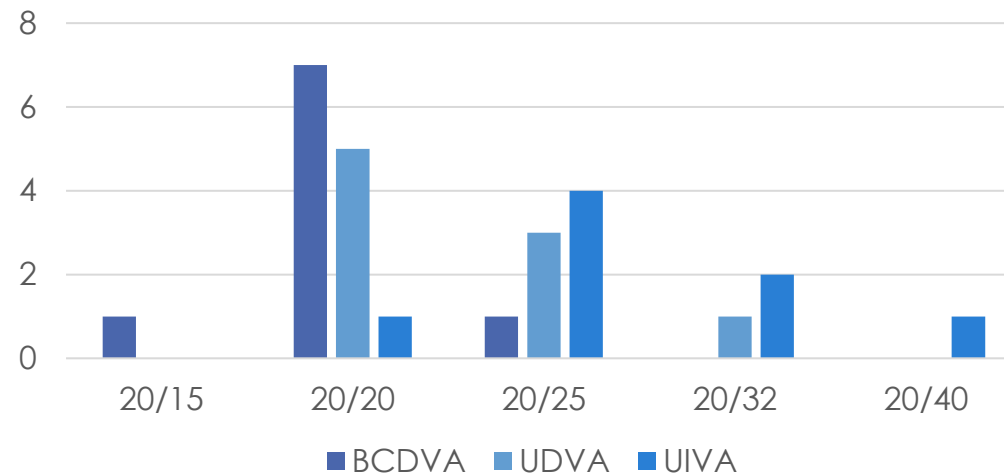
Preop delta K vs postop refractive astigmatism



Results



Post-operative BCDVA, UDVA, UIVA



BCDVA: 89% of eyes achieved 20/20 or better and **100%** of eyes achieved 20/25 or better

UDVA: 89% of eyes achieved 20/25 or better

UIVA: 78% of eyes achieved 20/32 or better

Conclusions



- The EA low-powered Toric IOL demonstrated strong predictability, delivering post-operative spherical equivalent outcomes near Plano, consistent with the target.
- It effectively reduced astigmatism (from 0.78D pre-op to 0.35D post-op) and provided excellent visual acuity, with 89% of eyes achieving 20/25 or better at distance. Additionally, it expanded functional vision into the intermediate range, with 78% of eyes reaching 20/32 or better.
- These early findings suggest that the EA Toric IOL is a highly effective toric-enhanced monofocal lens, offering predictable refractive outcomes and an expanded range of vision flexibility.
- Further studies with long-term follow-up may help confirm these benefits.