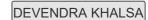


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Clinical outcomes, predictability and rotational stability following implantation of Eyecryl toric versus TECNIS toric intraocular lenses—A comparative study

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**Abstract** 

## **Purpose**

To compare the visual outcomes, predictability and rotational stability following implantation of Eyecryl toric versus TECNIS toric intraocular lenses.

## **Methods**

This retrospective study included 100 eyes of 78 eligible patients who underwent phacoemulsification followed by implantation of either Eyecryl Toric IOL or TECNIS Toric IOL (n = 50 eyes in each group), using an intraoperative image-guided marker less system. All toric IOL implantations were performed under balanced salt

solution. At 2 weeks, 3 months and 6 months, uncorrected (UDVA) and corrected distance visual acuity (CDVA), spherical equivalent refraction, residual astigmatism, and rotational stability of the toric IOL was evaluated and compared. Rotational stability was assessed using ray tracing.

## **Results**

Mean age of the participants was  $67.8 \pm 9.26$  years in Eyecryl toric group and  $64 \pm 11$  years in TECNIS toric group. The mean pre-op corneal astigmatism was  $1.75 \pm 0.62$  D and  $2.00 \pm 0.71$  D in the Eyecryl and TECNIS group, respectively (p = 0.07). At 2 weeks and at 6 months post-op, there was no statistically significant difference between the UDVA, CDVA, and residual astigmatism between the two groups (p < 0.05). Mean post-operative toric IOL rotation was  $3.94 \pm 2.27$  degrees in the Evecryl Toric group, and  $4.44 \pm 2.77$  degrees, in the TECNIS Toric group, respectively, the difference was not statistically significant (p = 0.32). One IOL in the Eyecryl group and two IOLs in the TECNIS group required re-positioning for significant postop rotation at 1 week post-op.

## **Conclusion**

At 6 months, both Eyecryl toric and TECNIS toric IOLs showed comparable post-operative outcomes in terms of UDVA, CDVA, residual astigmatism and rotational stability.