

One-year follow-up of a new posterior chamber toric phakic intraocular lens implantation for moderate-to-high myopic astigmatism

M E Sucu ¹, A Agca ², B Tulu ³

Affiliations + expand

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Abstract

Purpose: To investigate refractive and visual outcomes as well as rotational stability following implantation of Eyecryl phakic toric intraocular lens (pIOL) for moderate-to-high myopic astigmatism.

Methods: The efficacy, safety, predictability, stability, and adverse events of Eyecryl toric pIOL were evaluated in patients with spherical refraction from - 4.50 to - 18.50 diopters (D) and cylindrical refraction from - 0.50 to - 5.50 D.

Results: This study included 60 eyes of 31 patients. The mean manifest refraction spherical equivalent (MRSE) dropped from $- 10.45 \pm 2.74$ D preoperatively to $- 0.34 \pm 0.51$ D and $- 0.40 \pm 0.56$ D at 6 and 12 months postoperatively, respectively. There was an 81% decrease in astigmatism after surgery. The safety and efficacy of indices were 1.36 ± 0.43 and 1.20 ± 0.32 . At the final follow-up, the rate of eyes within ± 1.00 D and ± 0.50 D of the desired MRSE were 85% and 68.33%, respectively. Vision-threatening complications were not observed during the follow-up.

Conclusions: The implantation of pIOL was effective, safe, and predictable in patients with moderate-to-high myopic astigmatism during 1-year follow-up.

Keywords: Astigmatism; High myopic astigmatism; Myopia; PIOL; Toric phakic intraocular lens.

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