



# Long-term efficacy and safety results after iris-fixated foldable phakic intraocular lens for myopia and astigmatism: 6-year follow-up

Tiago Monteiro, MD, FEBO, FEBOS-CR, Fernando Faria Correia, MD, PhD, FEBOS-CR, Nuno Franqueira, MD, José Carlos Mendes, MD, Christophe Pinto, MD, Fernando Vaz, MD

**Purpose:** To evaluate the long-term efficacy and safety of iris-fixated foldable phakic intraocular lenses (pIOLs) for the management of myopia and astigmatism after 6-year follow-up.

**Setting:** Ophthalmology Department, Hospital Braga, Portugal.

**Design:** Retrospective cohort study.

**Methods:** Patients included underwent iris-fixated foldable Artiflex pIOL implantation between January 2010 and December 2013. Follow-up evaluations were performed 6 months postoperatively and every 12 months until 72 months. Preoperative and follow-up data on uncorrected and corrected distance visual acuity (CDVA), manifest refraction, endothelial cell density (ECD), and anterior chamber depth (ACD) were analyzed.

**Results:** A total of 177 eyes of 98 patients with a mean age of 32.33 ± 7.13 years were analyzed. There was a statistically significant

improvement in CDVA from 0.09 ± 0.02 logMAR preoperatively to 0.04 ± 0.02 logMAR ( $P < .0001$ ) at 6 years postoperatively. The spherical equivalent demonstrated a statistically significant improvement from  $-9.50 \pm 2.93$  diopters (D) to  $-0.41 \pm 0.45$  D at 6 years. At 72 months, the efficacy and safety indexes were 0.94 and 1.15, respectively. A mean loss of 31.77 cells/mm<sup>2</sup> (1.19%) was observed each year until the sixth year. The overall mean ECD loss after correction for the physiological loss was 3.02% after 6 years. No correlations were observed between the mean ECD loss and the preoperative ACD.

**Conclusions:** The Artiflex pIOL was a safe, effective, and a stable option to correct myopia. A mean ECD loss of 3.02% was observed over 6 years. No pIOL was explanted due to corneal decompensation.

*J Cataract Refract Surg 2021; 47:211–220 Copyright © 2021 Published by Wolters Kluwer on behalf of ASCRS and ESCRS*

## PURPOSE

6 가

## METHOD

2010 2013 72 (6 )  
UDVA, CDVA, MR, ECD, ACD 가

## RESULT

177 98 32.33 ± 7.13 가 CDVA 0.09 ± 0.02 logMAR  
6 0.04 ± 0.02 logMAR  
SE -9.50 ± 2.93D 6 -0.41 ± 0.45D 가  
.72 (6 ) Efficacy index : 0.94 Safety index 1.15  
31.77 cells/mm<sup>2</sup> 6 3.02%

## ACD

## CONCLUSIONS

6 3.02%