

# Evaluation of toric IOL implantation (Acrysof Toric) in cataract surgery. ESCRS Paris 2010



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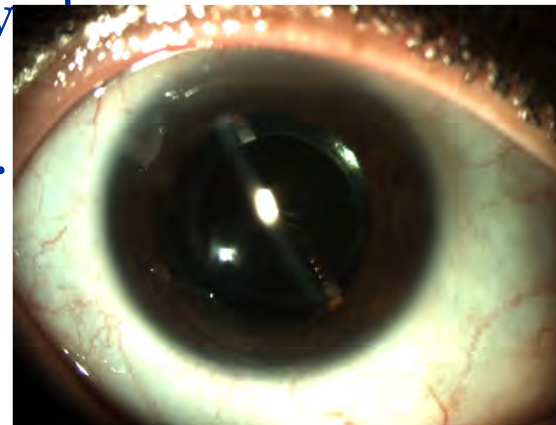
# Introduction

Several options are available in rehabilitating post-cataract surgery astigmatism: Limbal relaxing incisions, astigmatic keratotomies, post-cataract surgery bioptics with excimer treatments (PRK and LASIK) are some of the most popular. The astigmatic outcome is considerably predictable when the cornea is evaluated carefully pre-operatively (keratometry, topography, tomographic imaging), and especially when there is confidence in predicting the cataract procedure-induced astigmatism. The inclusion therefore of the calculated residual cylinder within the IOL to be implanted becomes a very attractive alternative. We attempted to evaluate the safety, efficacy and clinical parameters in the use of the Acrysof Toric, IOL (Alcon, Fort Worth, TX) in our routine cataract surgery protocol.



# Methods

- 115 eyes of 78 consecutive patients over 2 years were prospectively evaluated pre- and 6 months postoperatively for: age, UCVA, BSCVA, refraction, cylinder (C), topographic cylinder change (TCc), endothelium (ECC), degrees of planned-to-achieved IOL axis deviation angle of deviation planned to achieve 1 IOL position (Ad), and possible complications.



**Alcon** **Toric**

Alcon does not receive or retain any patient data. Please print a copy of the final output for your records. Contact your Alcon representative for available AcrySof® Toric IOL models. Print

**Lens Recommendation**

| Surgeon & Patient Information                     |               |
|---|---------------|
| Surgeon Name                                      | KANELLOPOULOS |
| Patient Name                                      |               |
| Additional Patient Information (I.D., Case, etc.) |               |

| Lens Details                   |        |
|--------------------------------|--------|
| AcrySof® Toric IOL             | SN60T5 |
| IOL Spherical Equivalent (SE)  | 9.0 D  |
| Axis of Placement              | 118°   |
| Cylinder Power (IOL Plane)     | 3.00 D |
| Cylinder Power (Corneal Plane) | 2.06 D |

| Calculation Details                      |               |
|--|---------------|
| Pre-Op Corneal Astigmatism:              | 3.40 D X 118° |
| Surgically Induced Astigmatism:          | 0.00 D X 28°  |
| Crossed-Cylinder Result (corneal plane): | 3.40 D X 118° |
| Anticipated Residual Astigmatism:        | 1.34 D X 118° |

| Patient Data                         |         |
|--------------------------------------|---------|
| Flat K                               | 44.20 D |
| ⊙ Flat Axis                          | 28°     |
| Steep K                              | 47.60 D |
| ⊙ Steep Axis                         | 118°    |
| IOL Spherical Power (P-IOL)          | 9.0 D   |
| Surgically Induced Astigmatism (SIA) | 0.00 D  |
| Incision Location (IL)               | 118°    |

**Pre-Op Information**

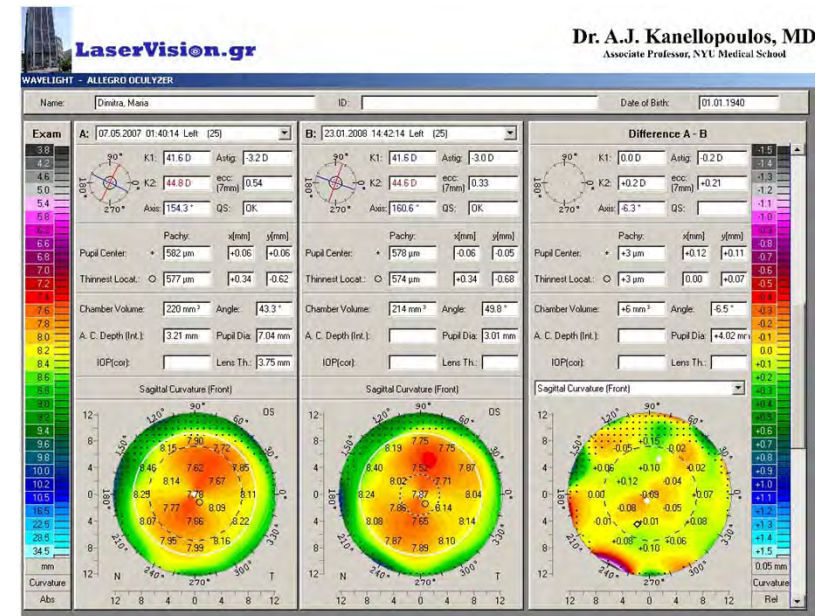
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# Results

- The mean age was 67 years.
- Mean values pre- and post-op were respectively:
- UCVA: From 20/100 to 20/25,
- BSCVA: From 20/40 to 20/22.
- Spherical equivalent reduction from 4.2 to 0.5 diopters,
- Cylinder (mean): -2.75D, -0.55 D,
- Topographic cylinder change (TCc): -0.45,
- ECC: 1850, 1650, Ad: 5 degrees. No serious complications were encountered in his small group. 2 cases required reoperation for better IOL orientation due to axis deviation over 30 degrees



# Conclusions

- The toric IOL option in cataract surgery appears to be safe and effective in facilitating emmetropia in routine cataract surgery. It was found to be simple in design and completion and appears to be minimally invasive in comparison to other alternatives mentioned above.





A photograph of a sunset over a rocky coastline. The sun is a bright yellow circle in the upper left, casting a warm orange glow across the sky. In the foreground, a small white boat with a red life preserver is moored in the water. The background features dark, silhouetted trees and a stone wall. The text "Thank you" is written in white serif font on the right side of the image.

Thank you

