CORRECTION OF ASTIGMATISM WITH TORIC IOL

V. Jašinskas, R. Žemaitienė, D. Jarušaitienė
National Center of Ophthalmology, Lithuania

22nd Congress of the DGII in Heidelberg, 2008

GLASSES
CONTACT LENSES
LRI
OCCI
LASIK
TORIC IOL

PURPOSE.

- TO EVALUATE STABILITY OF TORIC IOL MODEL TSN 60 T3-T4-T5 (ALCON) AFTER CATARACT SURGERY WITH ENDOCAPSULAR IOL IMPLANTATION

TO CORRECT PREOPERATIVE CORNEAL ASTIGMATISM WITH VERY GOOD VISUAL OUTCOMES

PREOPERATIVE PATIENT EXAMINATION/PREPARATION

INTRAOPERATIVE MANIPULATIONS

POSTOPERATIVE EVALUATION

PREOPERATIVE PATIENT EXAMINATION/PREPARATION

INTRAOPERATIVE MANIPULATIONS

POSTOPERATIVE EVALUATION

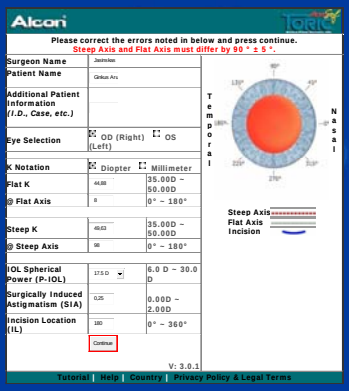
REFRACTOMETRY

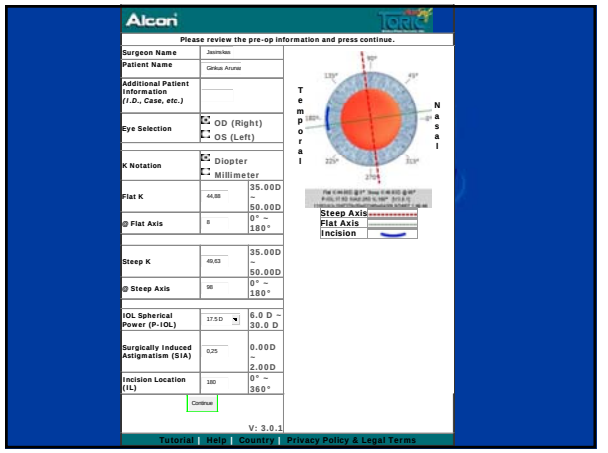
KERATOMETRY
(STEEP & FLAT MERIDIAN)

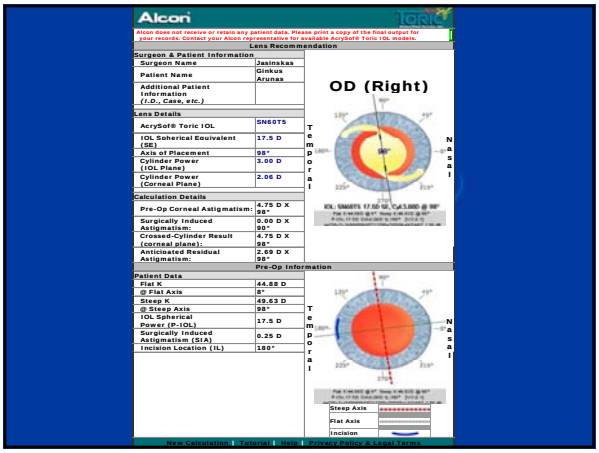
SPHERICAL IOL POWER

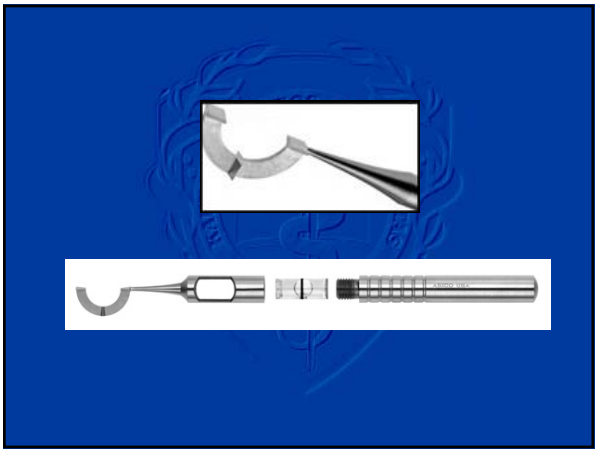
TORIC IOL CALCULATIONS

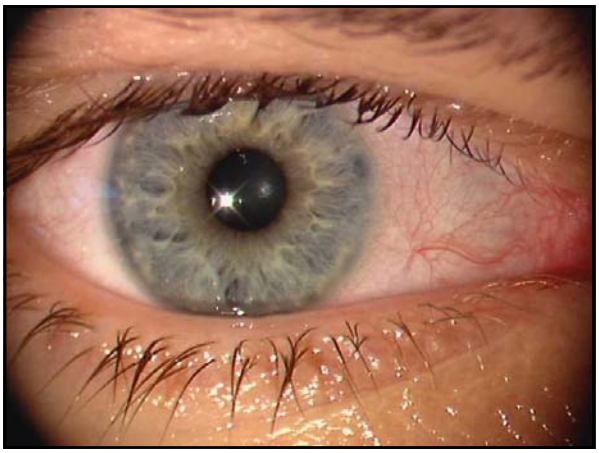
MARKING 3,6,9,12 O'CLOCK POSIONS

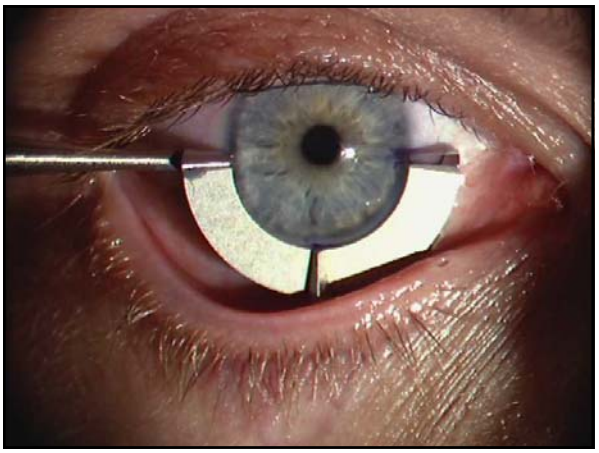


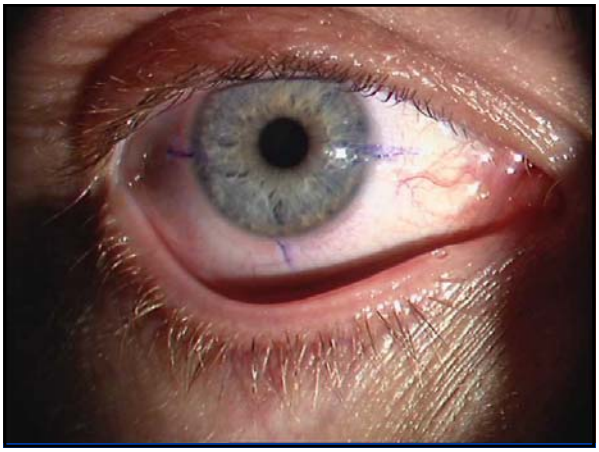


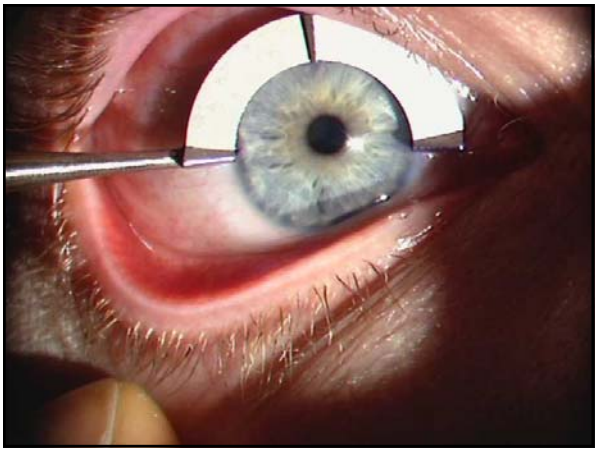


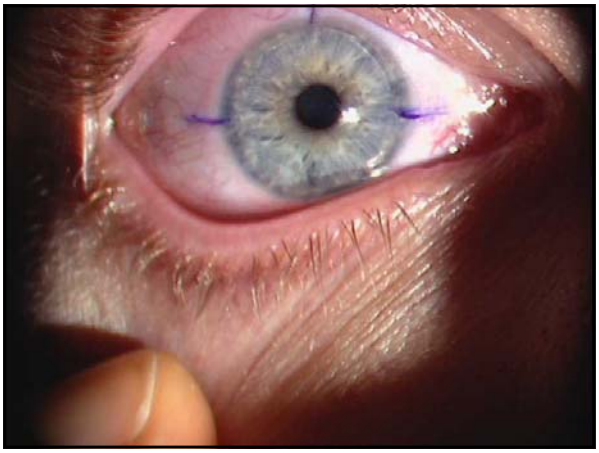


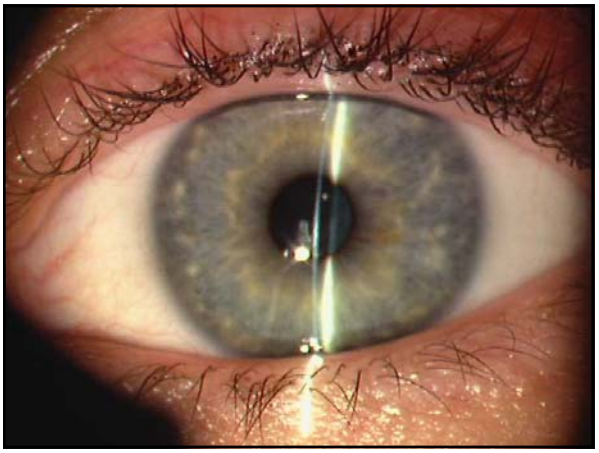


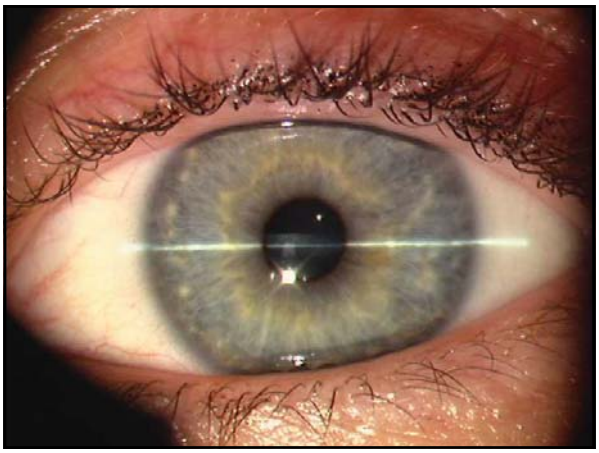








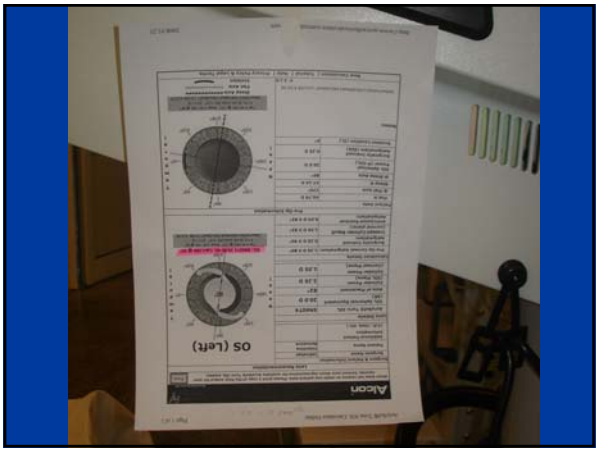




PREOPERATIVE PATIENT EXAMINATION/PREPARATION

INTRAOPERATIVE MANIPULATIONS

POSTOPERATIVE EVALUATION



INTRA-OP TORIC AXIS MARKING

CATARACT SURGERY AND IOL IMPLANTATION

GROSS IOL ALIGNMENT
REMOVAL OF OVD
FINAL IOL ALIGNMENT

PREOPERATIVE PATIENT EXAMINATION/PREPARATION

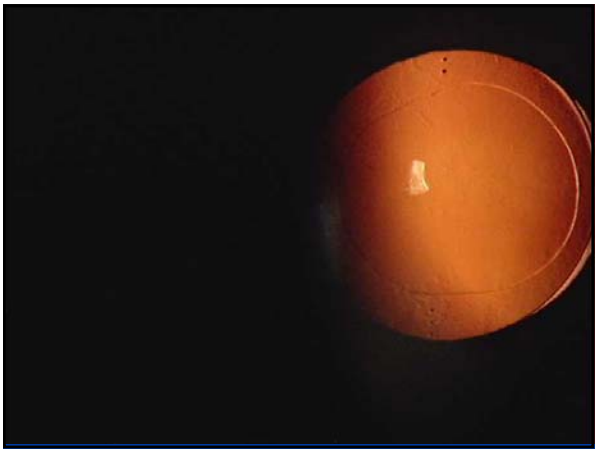
INTRAOPERATIVE MANIPULATIONS

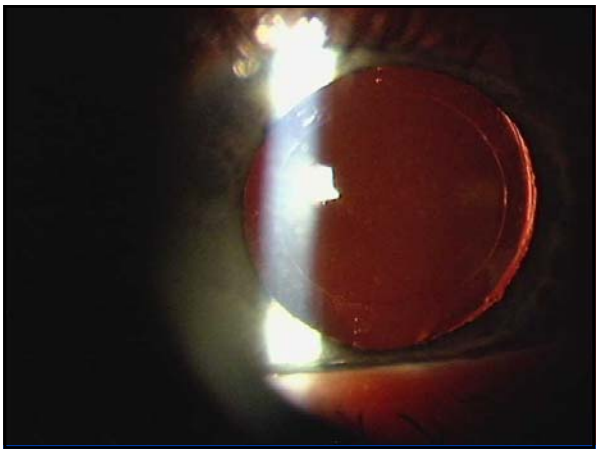
POSTOPERATIVE EVALUATION

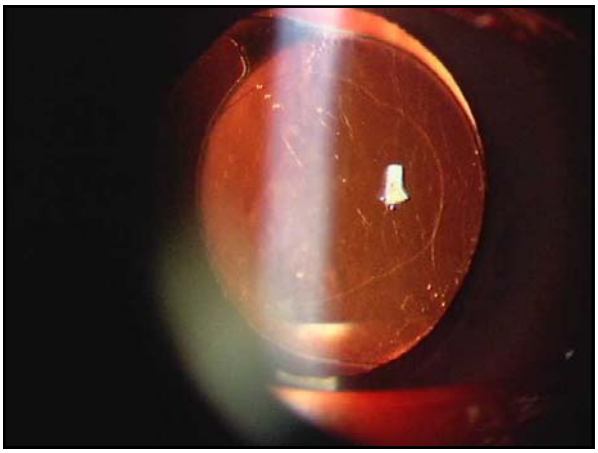
ROTATION STABILITY

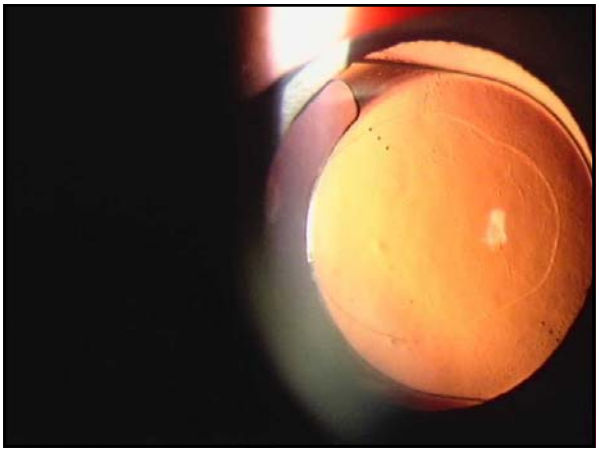
REFRACTOMETRY

CUMMULATIVE RESIDUAL REFRACTIVE EYE MISALIGNMENT









IOL RELATED
- IOL rotation

SURGERY RELATED
- Preop. Marking
- Patient in horizontal position
- Wide eyelids
- Incision location

EXAMINATION RELATED
- One (two) investigators
- Same conditions for examination
- Manual machine

23 EYES WERE OPERATED.
AGE OF PATIENTS WAS FROM 35 TO 74 YEARS.

K_1-K_2	IOL MODELS
3.61 ± 1.27	→ SA 60 T5 (n16)
1.64 ± 0.32	→ SA 60 T4 (n 4)
1.33 ± 0.16	→ SA 60 T3 (n 3)

- UCVA BEFORE SURGERY 0,12 ± 0,08
- BCVA BEFORE SURGERY 0,22 ± 0,19

IOL AXIS ROTATION (IN DEGREES):

- 1 day after surgery 1,73 ± 1,21 (max 4°) (<0,001)
- 1 month after surgery 1,79 ± 1,55 (max 4°) (<0,001)

RESIDUAL REFRACTION

IOL MODELS	1 day after surgery	1 month after surgery
SA 60 T5	1.14 ± 0.58	0.92 ± 0.64
SA 60 T4	0.56± 0.43	0.42 ± 0.42
SA 60 T3	0.50 ± 0.25	0.25 ± 0.50
Total	0.94 ± 0.57	0.90 ± 0.65

Dynamics of VA

	Before surgery	1 day after surgery	1 month after surgery
UCVA	0.12 ± 0.08	0.88 ± 0.23	0.85 ± 0.1
BCVA	0.22 ± 0.19	0.90 ± 0.22	0.92 ± 0.06

DYNAMICS OF VA

IOL models	1 day after surgery UCVA / BCVA	1 month after surgery UCVA / BCVA
SA 60T5	0.83 ± 0.14 / 0.85 ± 0.12	0.83 ± 0.15 / 0.87 ± 0.11
SA 60T4	0.98 ± 0.05 / 0.98 ± 0.05	0.97 ± 0.06 / 0.97 ± 0.06
SA 60T3	0.97± 0.06 / 0.97 ± 0.06	1,0 / 1,0

CONCLUSION

- Is safe & predictable tool in refractive cataract surgery
- Rotation stability
- Alcon toric IOL seems a good option for moderate Ast correction


THANK YOU FOR ATTENTION