Uveal cataract surgery: Technique and Experience

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The authors have no financial interest in the subject matter of this presentation

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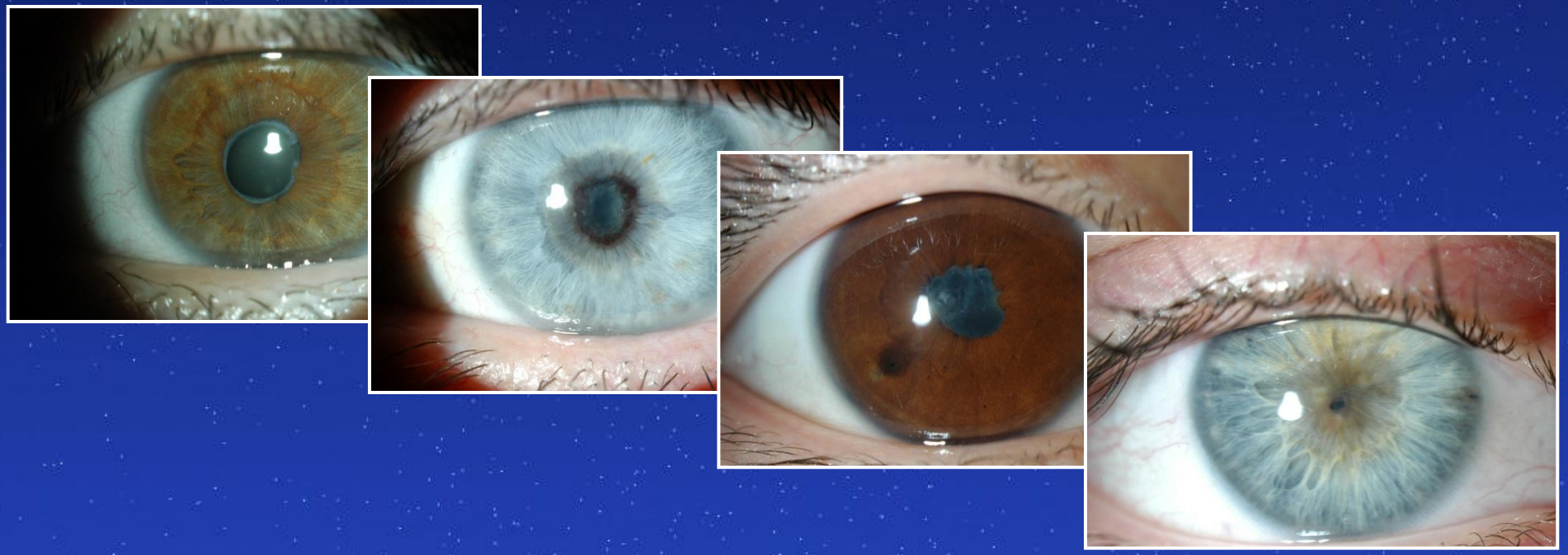
Purpose

To describe our experience of the surgical treatment of patients with uveal cataract (follow-up period was 7 years)



Methods

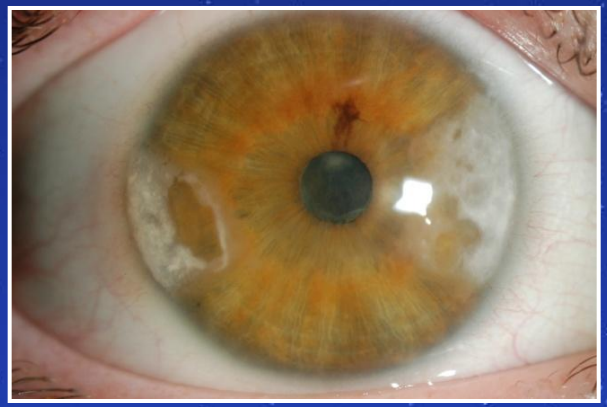
- *83 patients (111 eyes), 47 males, 36 females*
- *Aged from 5 to 74 years (mean 36.6)*
- *BCVA from pr.l.certae to 0.7 (mean 0.15 ± 0.11)*
- *IOP from 6 to 50.5 mm.Hg (mean 17.2)*

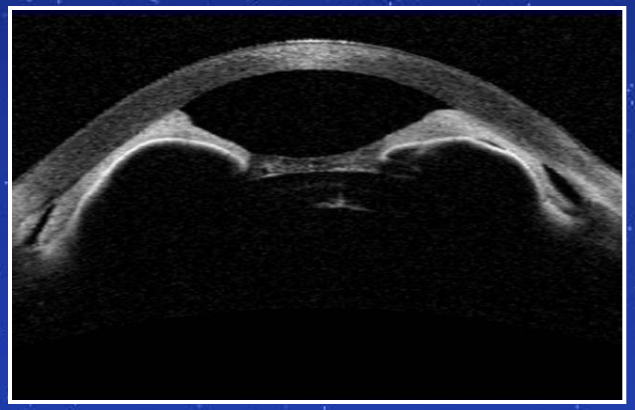
Etiology (patients):

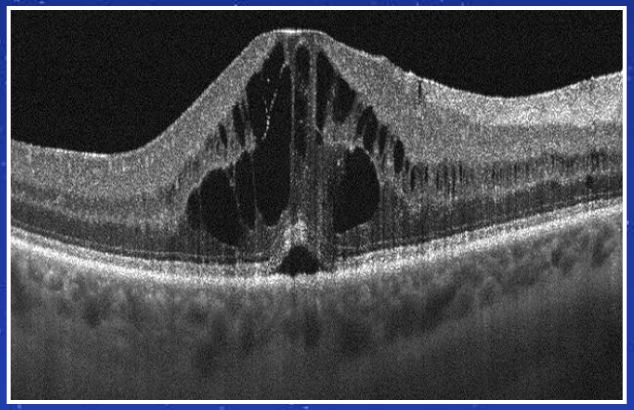
rheumatoid arthritis – 26, ankylosing spondylitis – 10, tuberculosis – 5, Fuchs' heterochromic iridocyclitis – 2, Lyme disease – 1, psoriasis – 1, sarcoidosis – 1, Reiter's disease – 1, opisthorchosis – 1, unidentified – 35

Clinical manifestations:

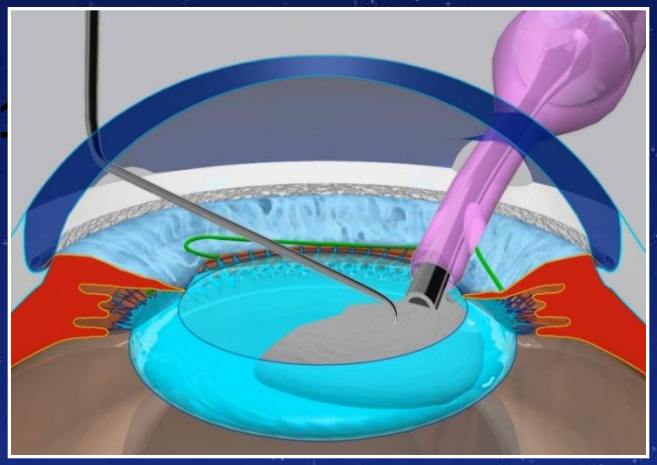
Band keratopathy	*26 eyes*	*(23.4 %)*
Posterior synechiae	*90 eyes*	*(81.1 %)*
Anterior synechiae	*12 eyes*	*(10.8 %)*
Exudative membrane	*35 eyes*	*(31.5 %)*
Secondary glaucoma	*21 eyes*	*(18.9 %)*
Cystoid macular edema	*36 eyes*	*(32.0 %)*



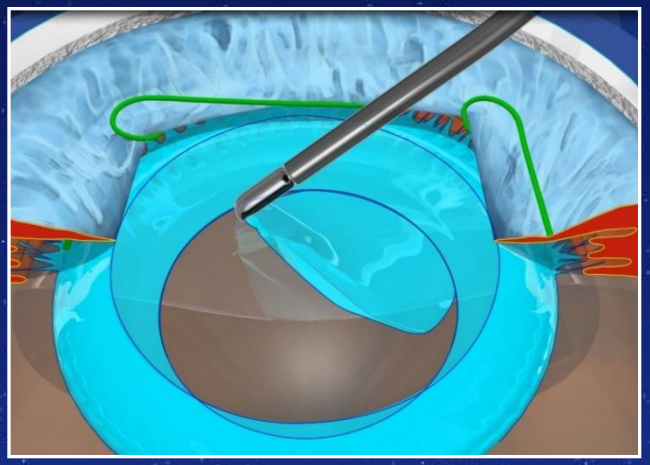




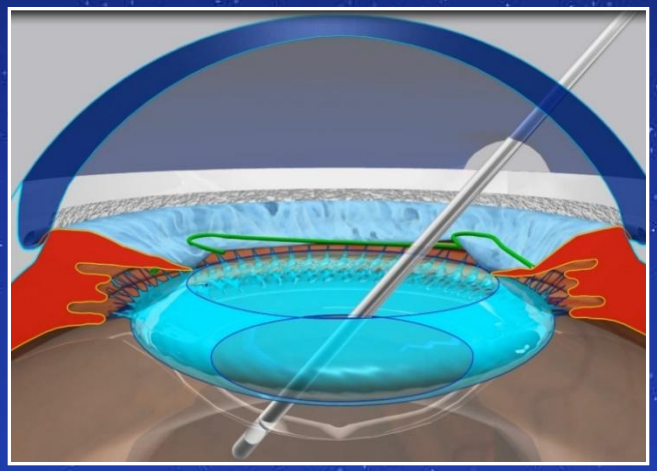
Surgical technique



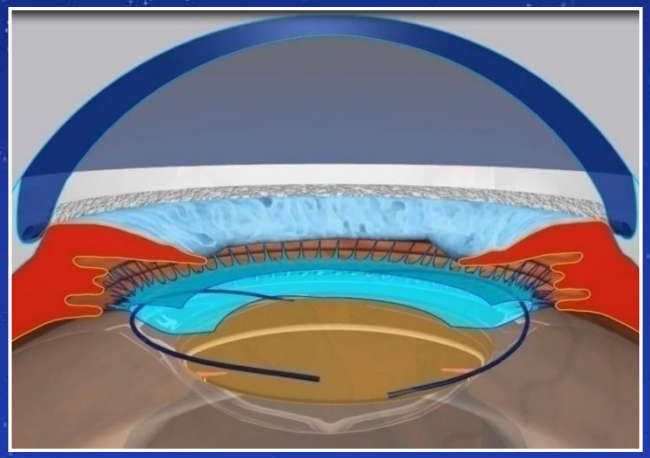
1. Ultrasound phacoemulsification



2. Posterior capsulorhexis



3. Partial vitrectomy



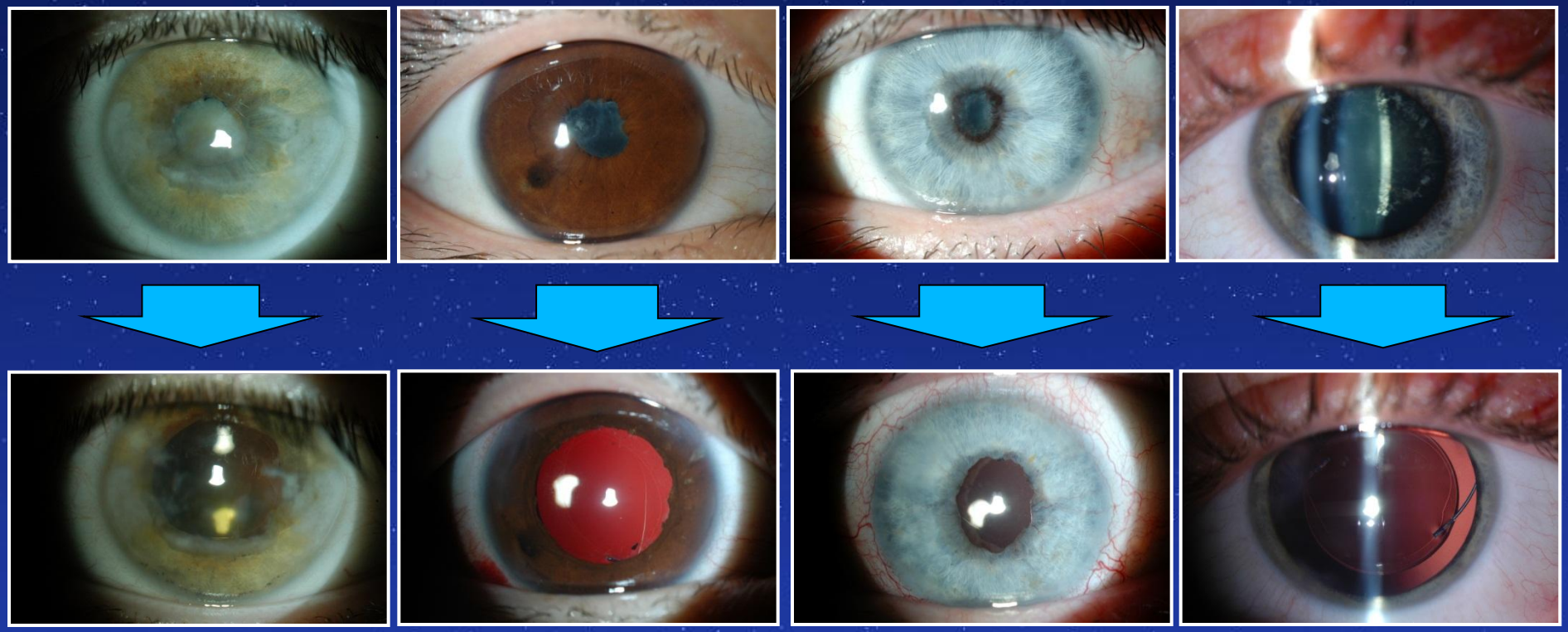
4. Optic part of the IOL placed behind the posterior capsulorhexis

Results

Best Corrected Visual Acuity

BCVA	Preop. N= 111	Day 1-2 N= 111	1 month N=111	3 months N= 94	1 year N=88	3 years N= 76	*P value*
	1	*2*	*3*	*4*	*5*	*6*	
> 0.5	4 (3.6%)	48 (43.2%)	57 (51.4%)	44 (46.8%)	44 (50.0%)	37 (48.7%)	*P 1-2,3,4,5,6 < 0.001*
0.2 – 0.5	27 (24.3%)	38 (34.2%)	36 (32.4%)	35 (37.2%)	29 (32.9%)	27 (35.5%)	*P 1,4 < 0.05*
< 0.2	80 (72.1%)	25 (22.6%)	18 (16.2%)	15 (16.0%)	15 (17.1%)	12 (15.8%)	*P 1-2,3,4,5,6 < 0.001*

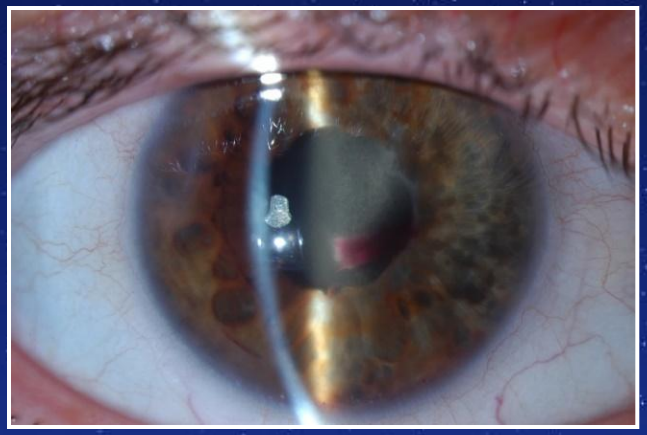
Results



The structure of the anterior segment was normalized

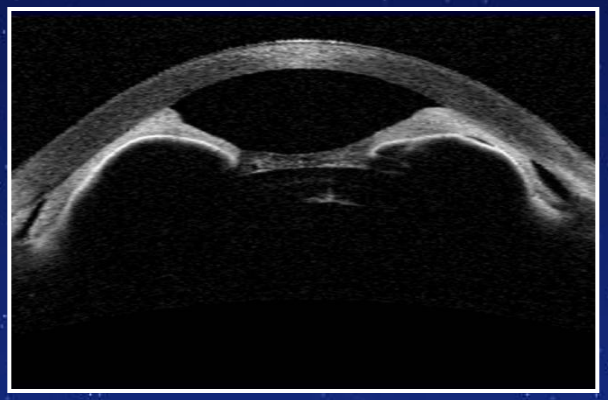
Results

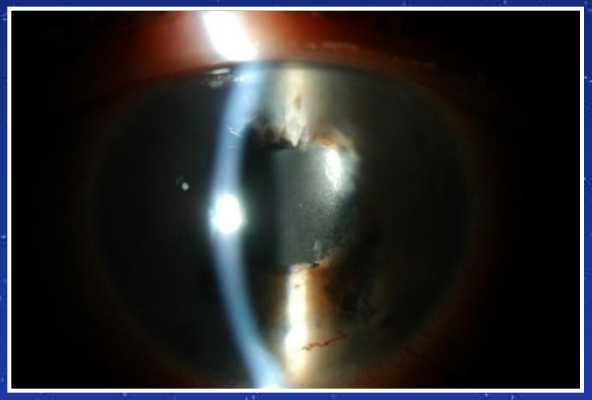
(characteristics of early postoperative period)

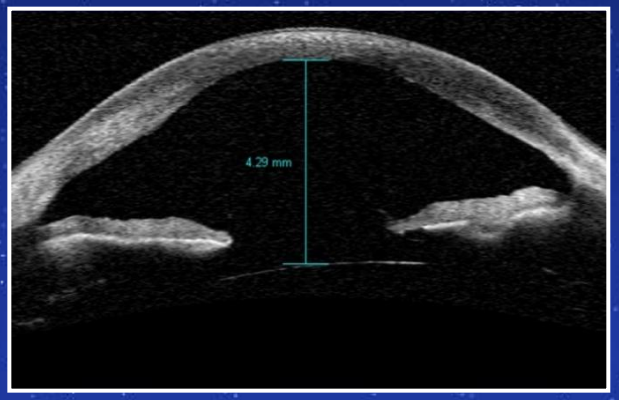


- *single cells in the anterior chamber – 9 eyes (8.1%)*
- *fibrin – 6 eyes (5.4%)*
- *IOP decompensation requiring surgery – 3 eyes (2.7%)*
- *Pre-existing diffuse macular edema -16 patients (14.4%)*
- *Pre-existing cystoid macular edema - 30 patients (27.0%)*

Results



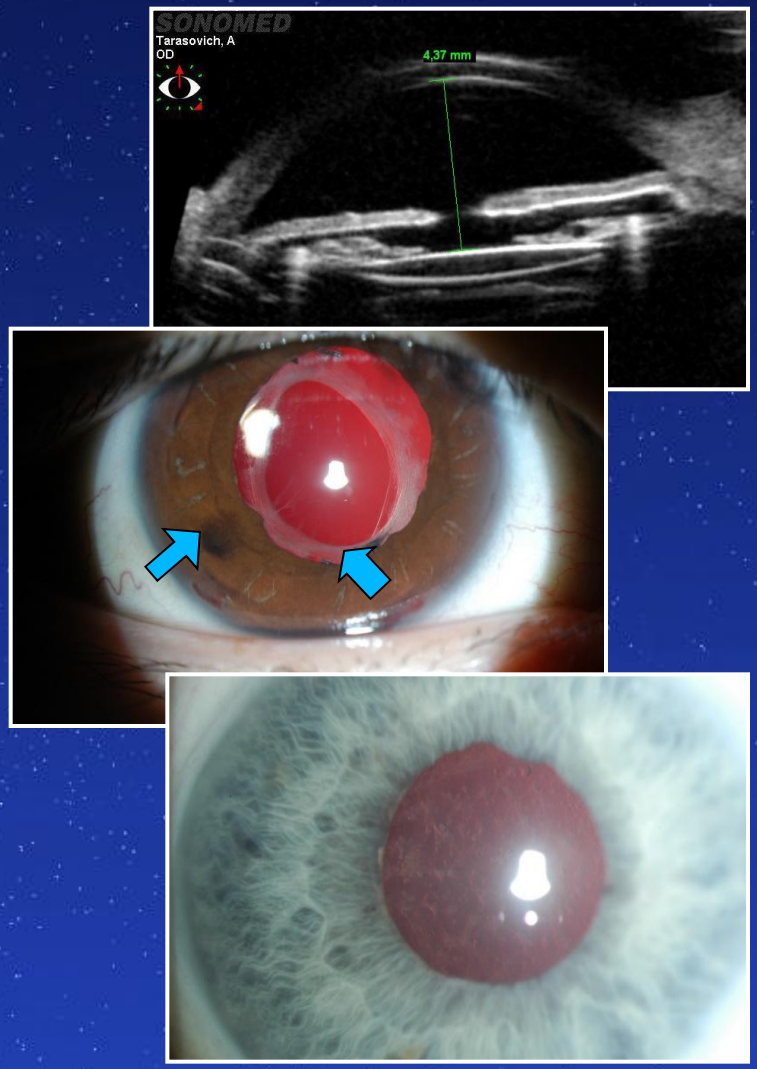




- *optic part of the IOL – behind the posterior capsulorhexis*
- *mean distance from the cornea to the IOL was 4.41 ± 0.1 мм.*
- *prevention of posterior synechiae*

Long-term results

- *stable correct anatomy of the anterior segment – 98.2%*
- *single posterior synechiae (without iris bombee!) - 2 eyes (1.8%)*
- *deposits on the IOL – 11.4% (well treated by conservative therapy)*
- *cystoid macular edema (with onset at 4 - 24 weeks after surgery) – 6 eyes (5.4%)*
- *vitrectomy and removal of epiretinal membranes - 9 eyes (8.1%)*



Conclusions

- *The suggested method allows achieving good, stable anatomical and functional results*
- *The position of the IOL optic part and partial vitrectomy can decrease the occurrency of the posterior synechiae*
- *Most of postoperative complications are well treated*
- *Low visual acuity was caused by pre-existing corneal and/or retinal pathology*
- *Epiretinal membranes increase the risk of cystoid macular edema and serve an indication for vitrectomy in most cases*


Thank you for attention!