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# Long-Term Results of Multifocal IOL Implantation

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



# Purpose And Method

1. The aim of the study was to evaluate the quantitative and qualitative vision of the patients 8 years after the multifocal lenses –ReStor+4.0D, Alcon- implantation.
2. The preventive control of out patients.
  - Evaluated data:
    1. BCVA before the surgery, UCVA 8 years after the surgery.
    2. Objective refraction before and 8 years after the surgery.
    3. Intraocular pressure before and 8 year after the surgery.
    4. The posterior capsule opacification and the YAG capsulotomy percentage.
    5. OCT 8 years after the surgery.
    6. Subjective satisfaction of our patients.

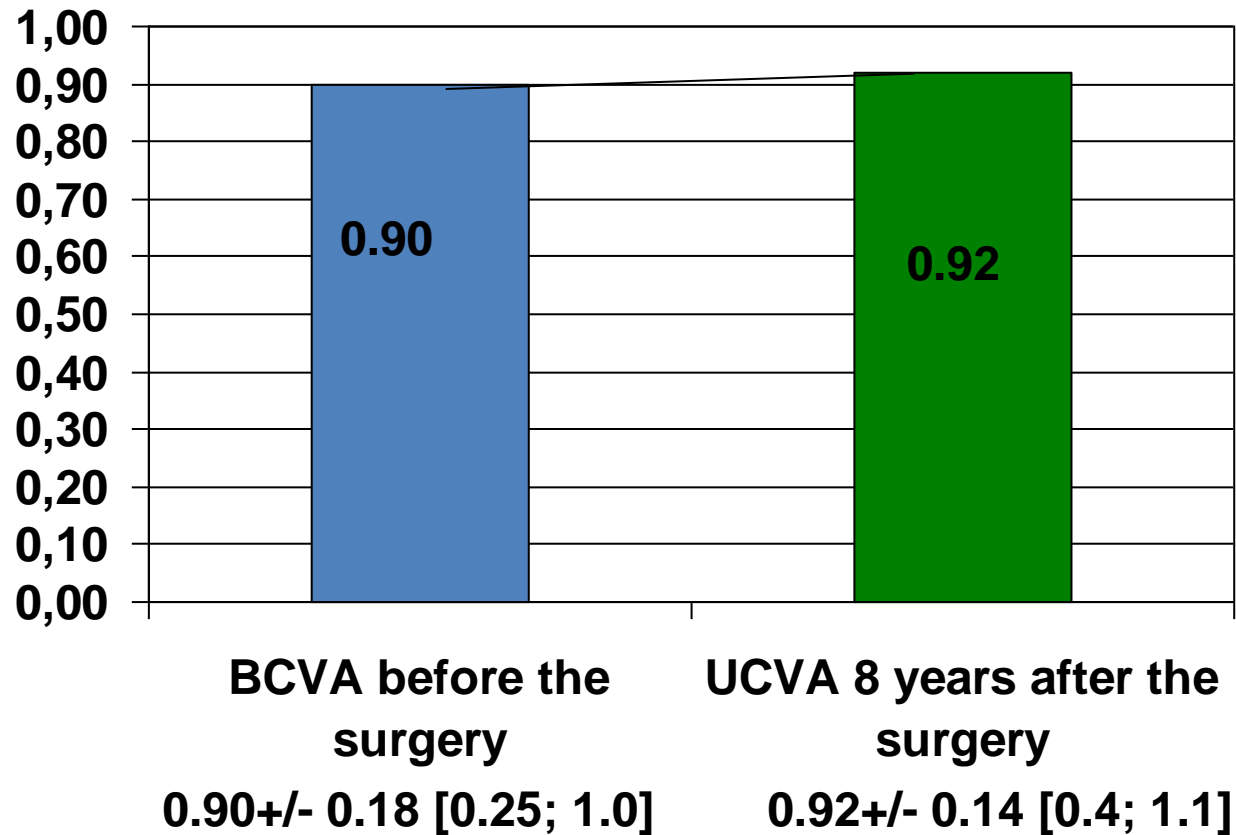


## Patients

- 60 eyes of 30 patients, 15 women, 15 men
- 8 years post bilateral multifocal intraocular lenses ReStor natural<sup>®</sup> (Alcon) implantation
- Average age of our patients was 56 years
- Average sphere before the surgery was +2.0 sf D [-7.25; +6.5 D].
- There was no other eye pathology except cataract.
- OCT and endothelial microscopy wasn't commonly evaluated in these days (today it's a standard)
- There were 23 % bioptics with excimer laser propter astigmatism.



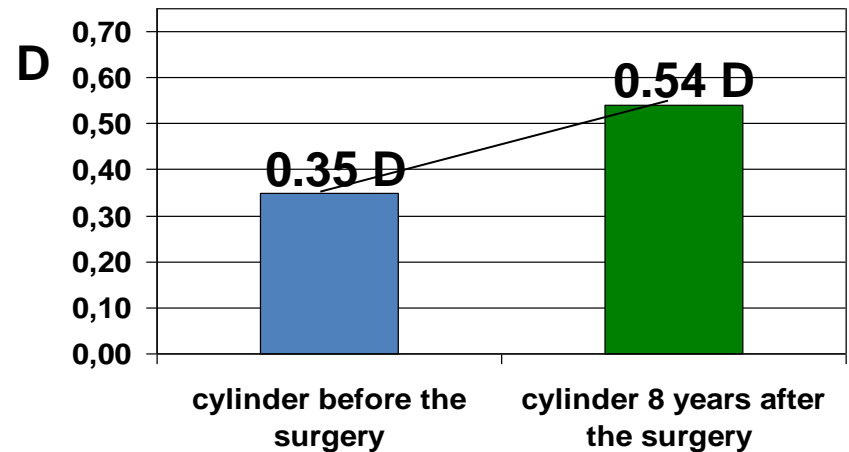
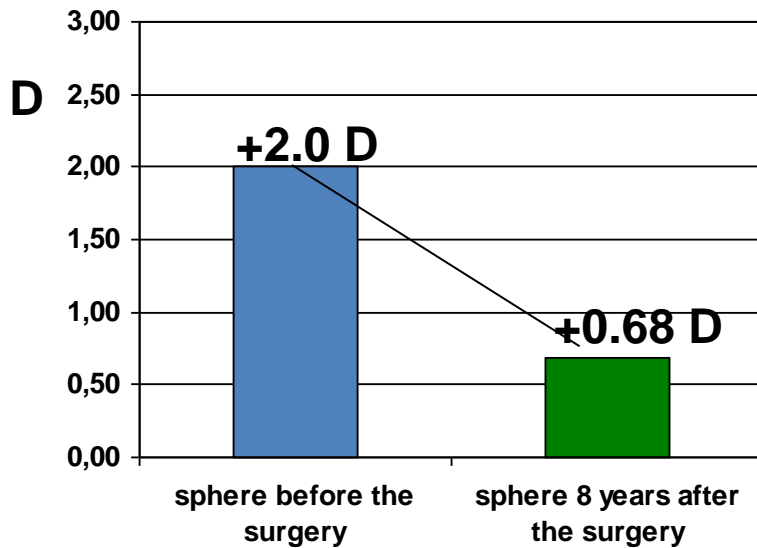
## Results: BCVA before the surgery, UCVA 8 years after the surgery





## Results:

# Objective sphere and cylinder before the surgery and 8 years after the surgery

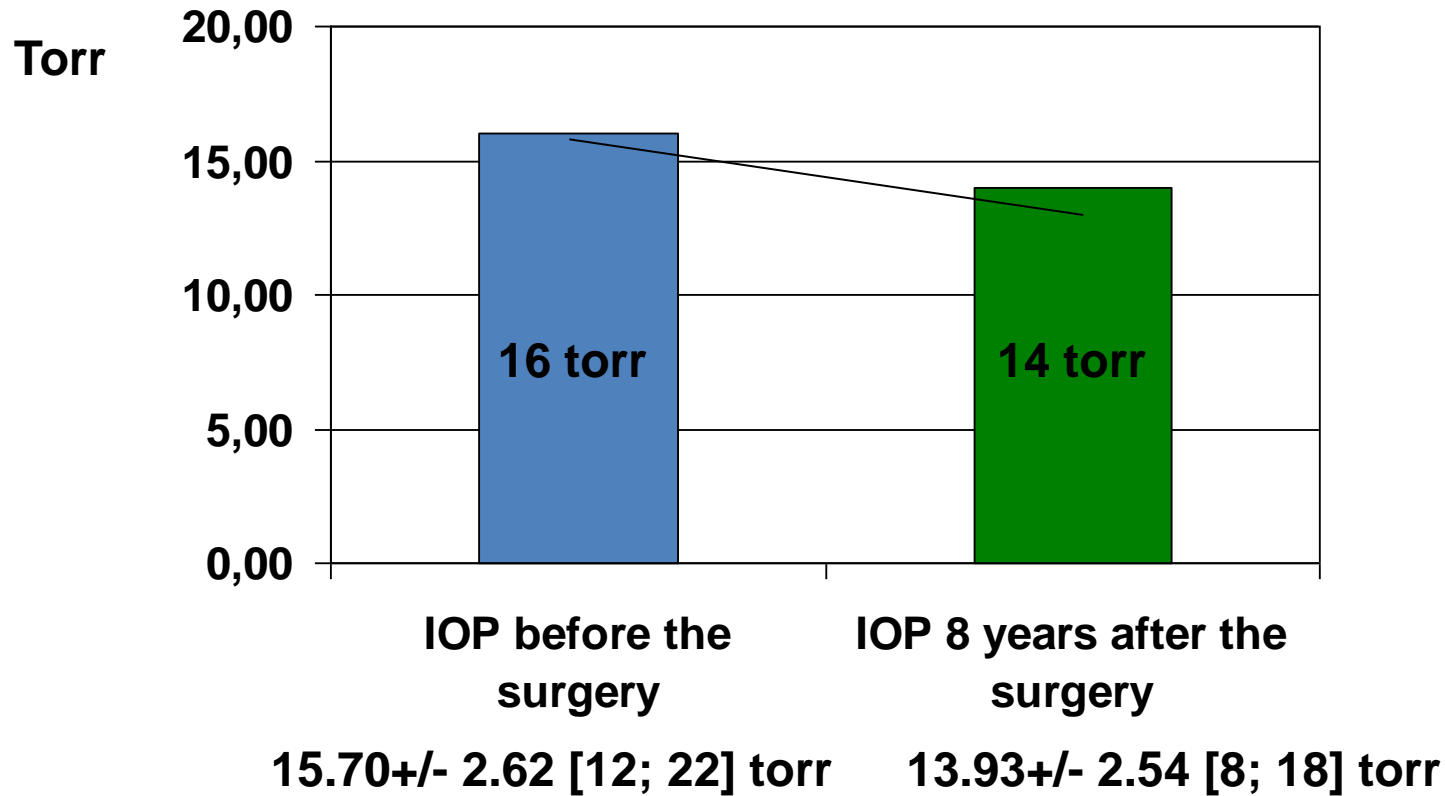


+2.0 +/- 2.71 [0.4; 1.1] D    +0.68 +/- 0.55 [-1.0; +2.0] D

-0.35 +/- 0.59 [-2.25; -0.25] D    -0.54 +/- 0.29 [0; -1.5] D



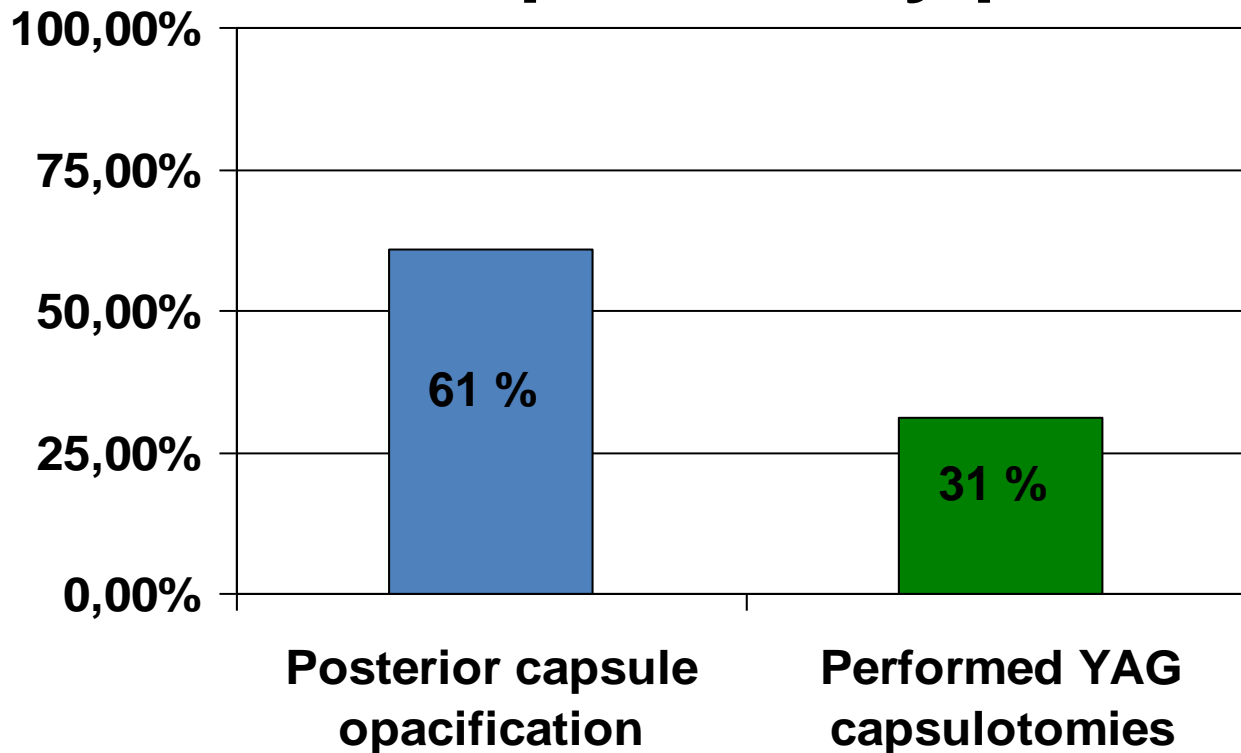
## Results: Intraocular pressure (IOP)





## Results:

# Posterior capsule opacification and the YAG capsulotomy percentage

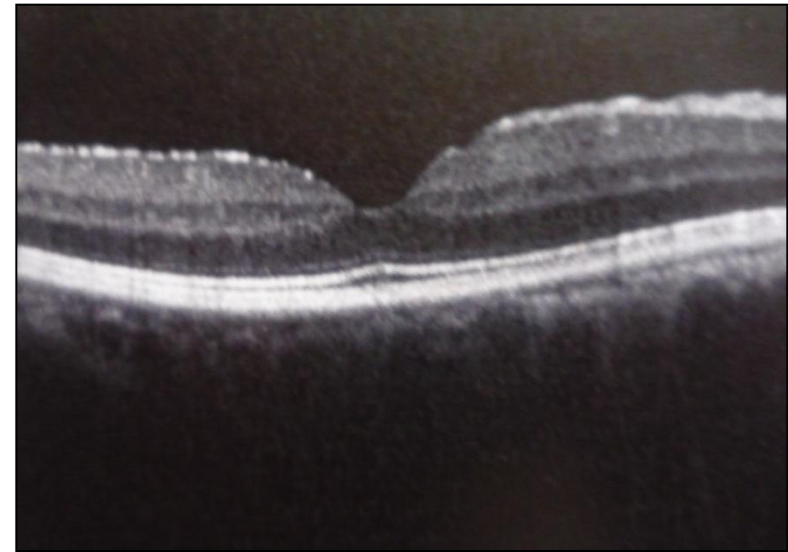
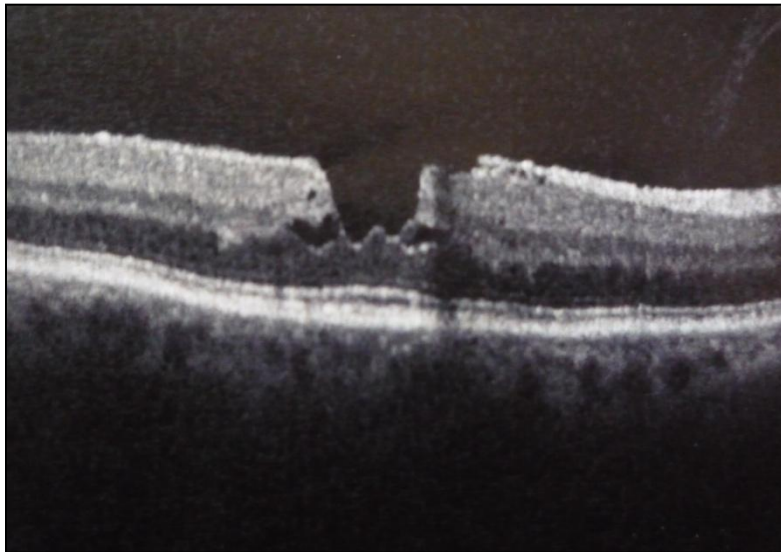


YAG capsulotomy performed average 3 years after the surgery



## OCT fovea centralis

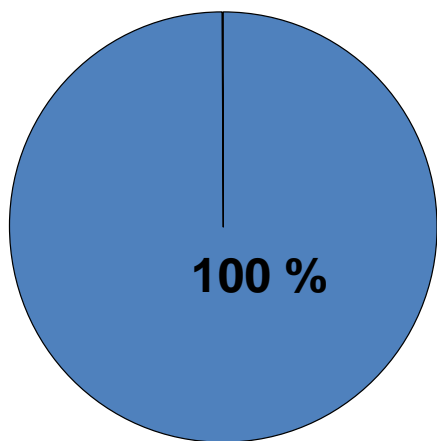
- 11 %, i.e. 6 eyes new ERM (Ø age 66 years)
- 2 eyes new maculopathy (age of patient 60 years)



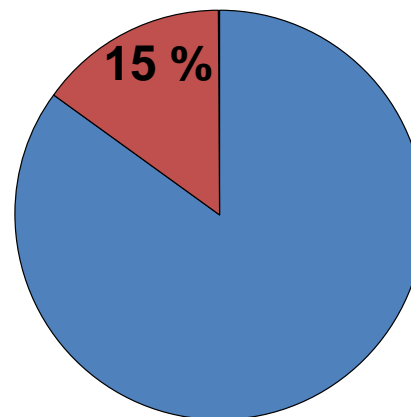




## Results: Glass independence

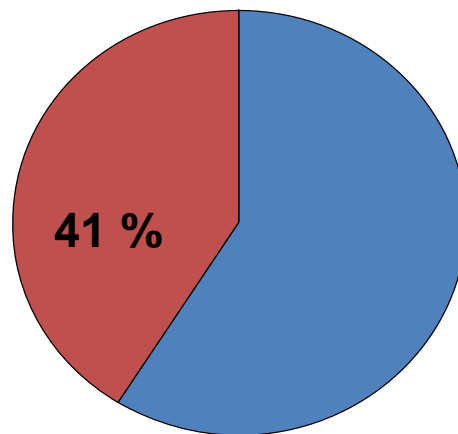


■ Glass independence



■ No problems with reading on Middle distances %

■ Problems with reading on Middle distances %

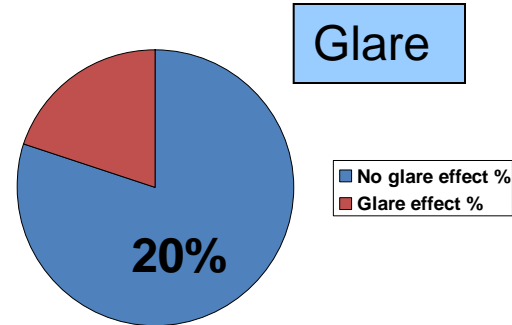
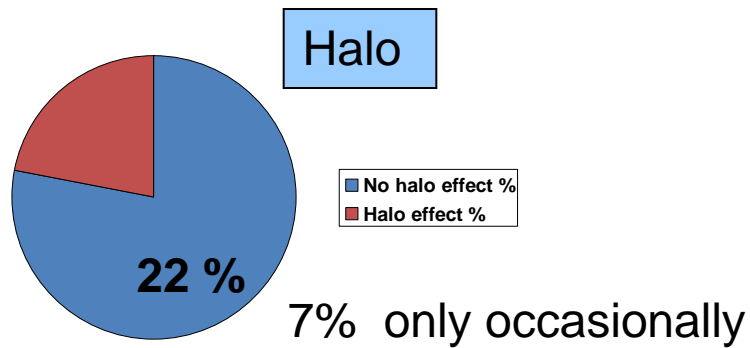


■ good quality of reading in low light conditions

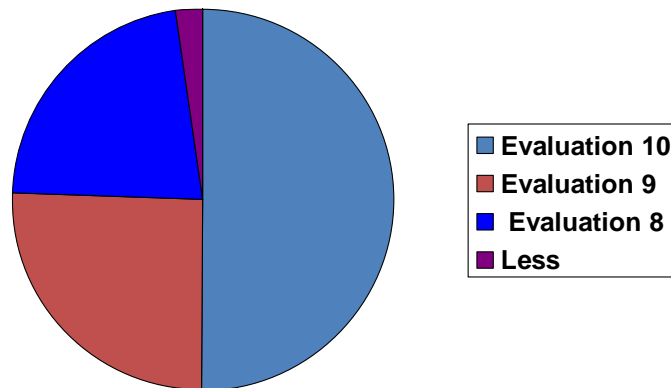
■ Worse quality of reading in low light conditions



## Results: Night vision - halo, glare



## Results: Subjective satisfaction— scale 1 - 10





## Results: Subjective satisfaction

- 15% patients suffered with dry eye
- 1 patient start squint
- 1 patient doesn't see well golf balls for 20 m distances
- 2 patients with light amblyopia can read 2 more lines than before surgery

- In high percentage was written:
- „It wanted to be trained.“ and „Best resolution in my live.“



# Conclusions

- Even 8 years after the surgery we find the Implantation of multifocal lenses ReStor, Alcon the safe procedure.
- The most patients evaluates the results as the maximum minus (average mark is 9). The only comments have patients to night vision quality and worse reading in low light condition.
- Side optical phenomena in low light conditions are presented in 20 % and in 7 % only occasionally.
- Near every patient has spectacular independence even 8 years after she surgery (old type ReStor with addition +4 D). The problems with middle distances are presented in 15 % and the patients usually adapts with the position of their head.
- Almost all patients confirm the influence of the neuroadaptation and total adaptation on his quality of vision.