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NO FINANCIAL INTERESTS OR RELATIONSHIPS TO DISCLOSE.

*Residual refractive effect of PRESBYLASIK®  
Omnifocal Corneal Ablation with a Monofocal  
Spherical IOL:  
Case report.*



*Purpose:*

The purpose of this case report is to analyze the residual refractive effect of Presbylasik® Omnifocal Corneal Ablation with a monofocal spherical IOL in two eyes of one patient undergoing cataract surgery with near/distance vision demands.

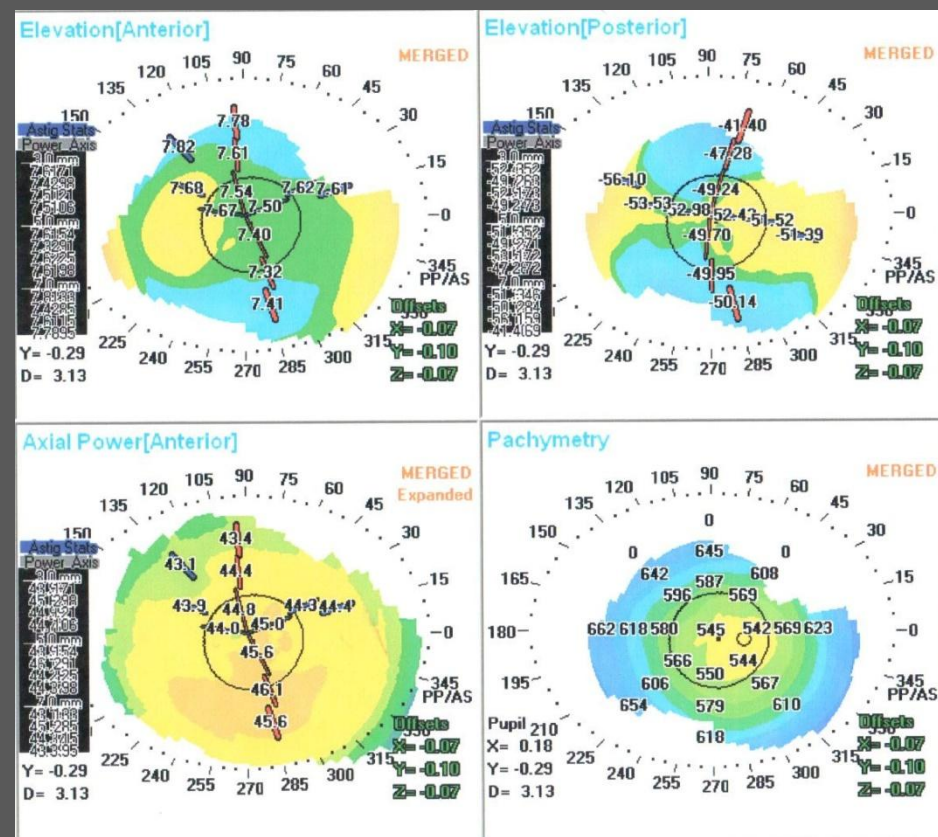
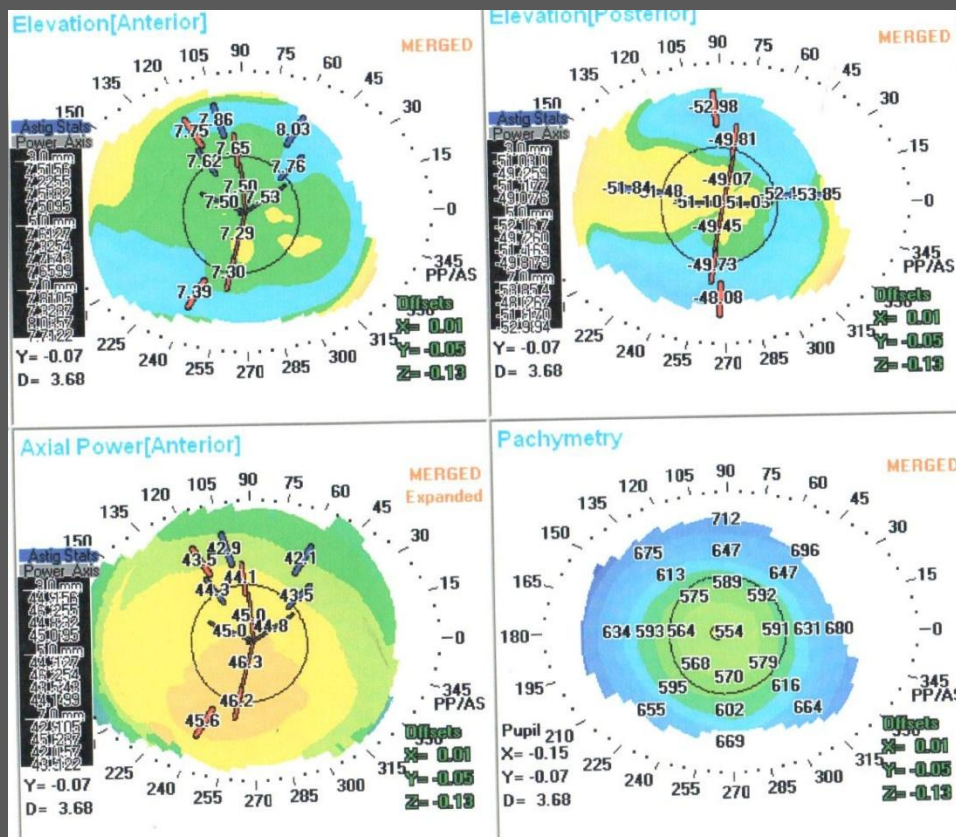


### *Methods and Materials:*

Case series. Two eyes with prior Presbylasik® Omnifocal Corneal Ablation (36 months follow-up) were included in the study. The preoperative evaluation included distance and near UCVA, BSCVA, manifest refraction, corneal topography using TOMEY TM5®, and LENSTAR®. Cataract surgery was performed by the same surgeon in the two eyes using Alcon Infinity®, with IOL SN60AT Monofocal Spherical lens implantation. Shammas and Clinical History formulas were used in lens calculation. The postop evaluation included distance and near UCVA, BSCVA, and manifest refraction.



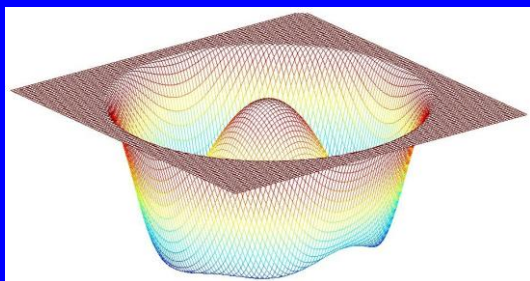
## PREOP TOPOGRAPHY OD/OS





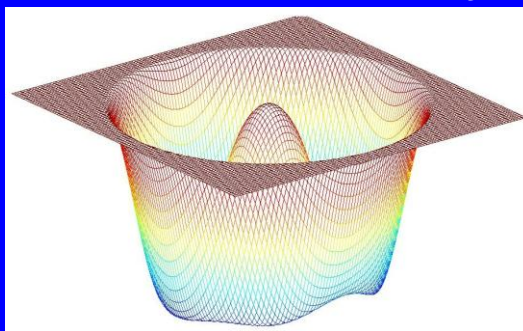
## OMINIFOCAL PRESBYLASIK ABLATION PATTERN

**CustomVue**

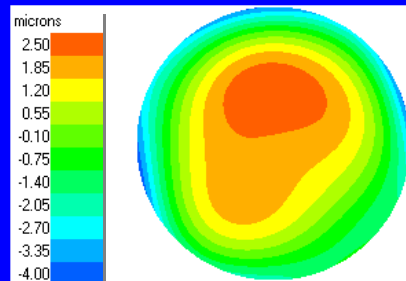
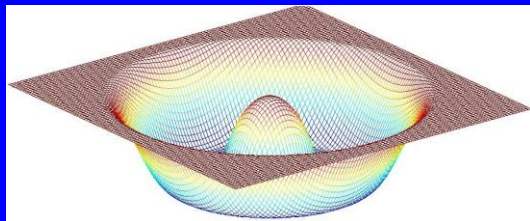


+2.00+0.50x125

**CustomVue + Presby**



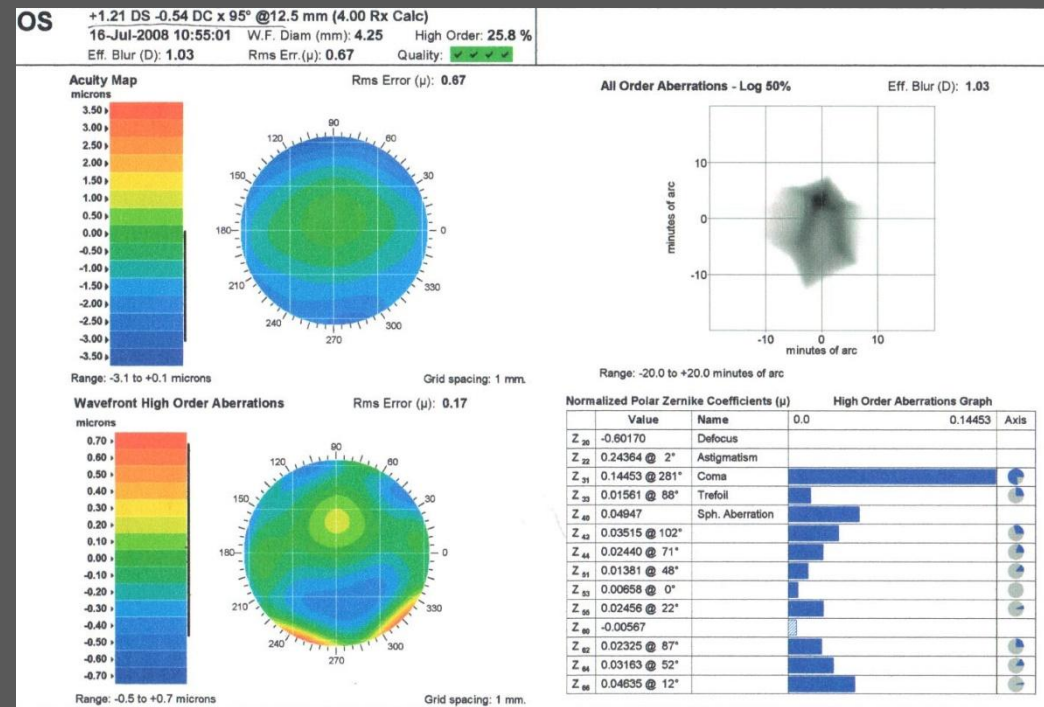
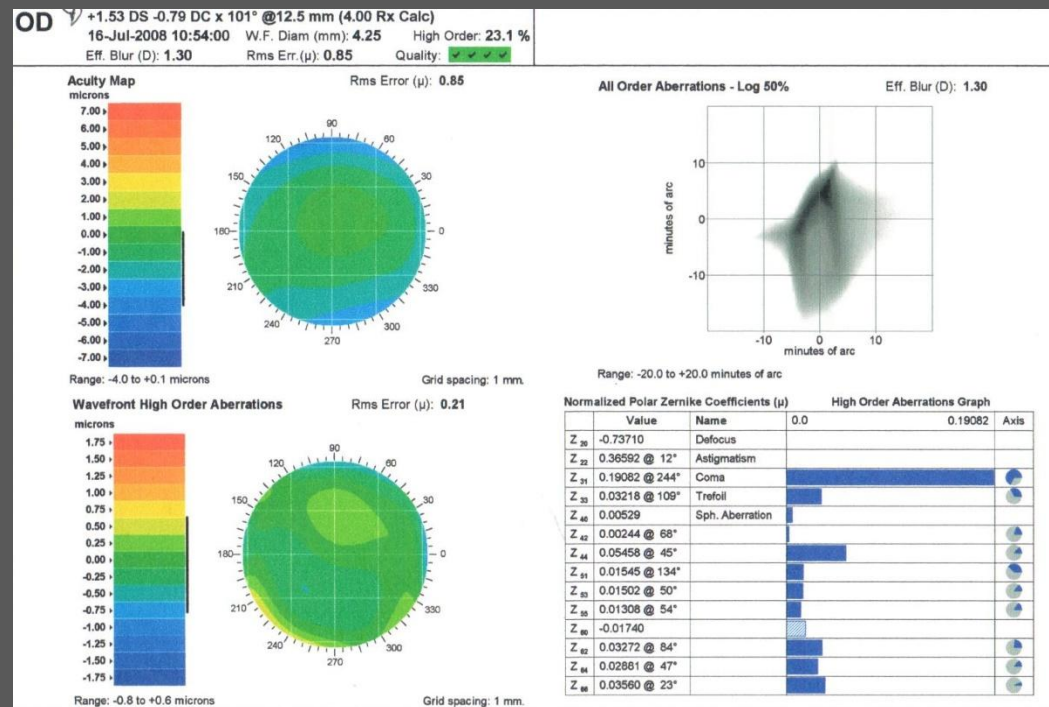
**Presbyopia Ablation**







# WAVESCAN OD/OS





## PREOP. LENSTAR

# OD

Right eye  
Phakic

LS900 16/11/2011 - 1

AL [mm]	23.02	R1 [mm/D]	7.50 / 45.00 @ 159
CCT [μm]	573	R2 [mm/D]	7.41 / 45.56 @ 69
AD [mm]	2.49	R [mm/D]	7.45 / 45.28
ACD [mm]	3.07	+AST [D]	0.57 @ 69
LT [mm]	4.60	n	1.3375
		WTW [mm]	11.59

Target Refraction: 0,00

Template: unsaved

NATURAL y Toric

Alcon Nano

IOL [D]	Eye [D]
19,50	0,78
20,00	0,45
<b>20,50</b>	<b>0,12</b>
21,00	-0,21
21,50	-0,55

SRK/T  
A=118,80

NATURAL y Toric

Alcon Nano

IOL [D]	Eye [D]
19,50	0,62
20,00	0,29
<b>20,50</b>	<b>-0,04</b>
21,00	-0,38
21,50	-0,72

Holladay  
SF=1.65

NATURAL y Toric

Alcon Nano

IOL [D]	Eye [D]
19,50	0,54
20,00	0,19
<b>20,50</b>	<b>-0,17</b>
21,00	-0,53
21,50	-0,89

Haigis  
A0=-0,148 / A1=0,227 / A2=0,182

NATURAL y Toric

Alcon Nano

IOL [D]	Eye [D]
19,50	0,95
20,00	0,55
<b>20,50</b>	<b>0,15</b>
21,00	-0,25
21,50	-0,65

SRK-II  
A=119,00

NATURAL y Toric

Alcon Nano

IOL [D]	Eye [D]
19,50	0,54
20,00	0,21
<b>20,50</b>	<b>-0,12</b>
21,00	-0,46
21,50	-0,80

Hoffer Q  
pACD=5.43

# OS

Left eye  
Phakic

LS900 16/11/2011 - 1

AL [mm]	23.06	R1 [mm/D]	7.67 / 44.02 @
CCT [μm]	581	R2 [mm/D]	7.53 / 44.83 @
AD [mm]	2.49	R [mm/D]	7.60 / 44.42
ACD [mm]	3.07	+AST [D]	0.81 @
LT [mm]	4.55	n	1.3375
		WTW [mm]	11.96

Target Refraction: 0,00

Template: unsaved

NATURAL y Toric

Alcon Nano

IOL [D]	Eye [D]
20,50	0,65
21,00	0,32
<b>21,50</b>	<b>-0,02</b>
22,00	-0,36
22,50	-0,71

SRK/T  
A=118,80

NATURAL y Toric

Alcon Nano

IOL [D]	Eye [D]
20,50	0,58
21,00	0,24
<b>21,50</b>	<b>-0,10</b>
22,00	-0,44
22,50	-0,79

Holladay  
SF=1.65

NATURAL y Toric

Alcon Nano

IOL [D]	Eye [D]
20,50	0,58
21,00	0,23
<b>21,50</b>	<b>-0,13</b>
22,00	-0,49
22,50	-0,86

Haigis  
A0=-0,148 / A1=0,227 / A2=0,182

Target Refraction: 0,00

Template: unsaved

NATURAL y Toric

Alcon Nano

IOL [D]	Eye [D]
20,00	0,72
20,50	0,37
<b>21,00</b>	<b>0,02</b>
21,50	-0,34
22,00	-0,69

Shammas No-History  
A=118,80

Target Refraction: 0,00

NATURAL y Toric

Alcon Nano

IOL [D]	Eye [D]
21,50	0,54
22,00	0,19
<b>22,50</b>	<b>-0,17</b>
23,00	-0,52
23,50	-0,88

Shammas No-History  
A=118,80



### *Results:*

The preoperative distance UCVA was 20/50, near UCVA Jaeger III in the both eyes. Distance BSCVA 20/40 for the right eye and 20/30 for the left eye with a mean sphere of + 0,88D, mean cylinder + 0,69D. Postoperative data with 18 months follow up showed distance/near UCVA 20/25 J III OD and 20/40 JI OS, Near BSCVA JI OD and distance BSCVA 20/25 OS with mean sphere -0,25D and mean cylinder -0,25D. No loss of BSCVA lines were recorded.





### *Conclusions:*

Although more patients are needed, the residual refractive effect of Presbylasik® Omnifocal Corneal Ablation with a spherical monofocal IOL shows predictable results for near/distance visual acuity. This, in our opinion, allows us to avoid the use of a multifocal aspherical IOL with a difficult lens calculation.



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