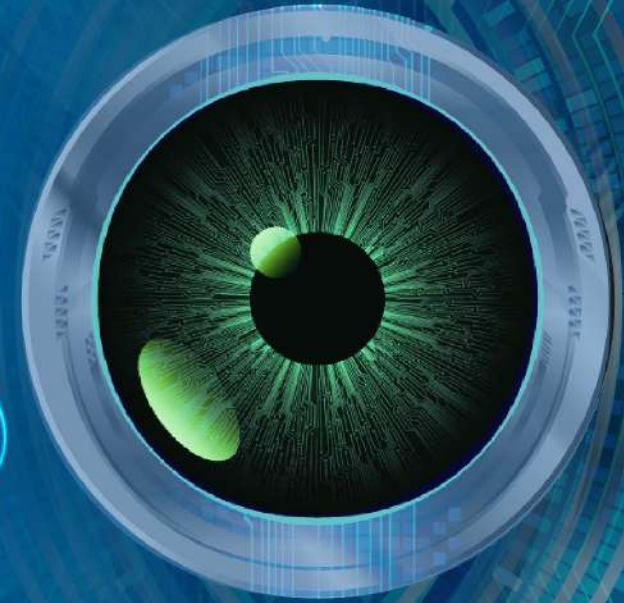
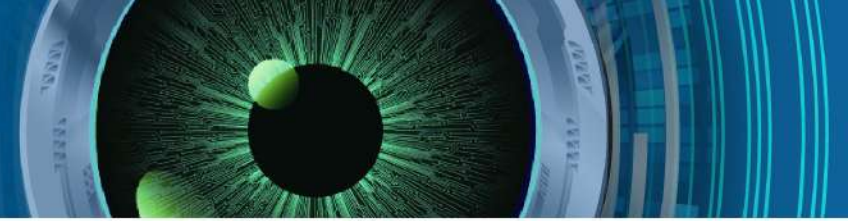


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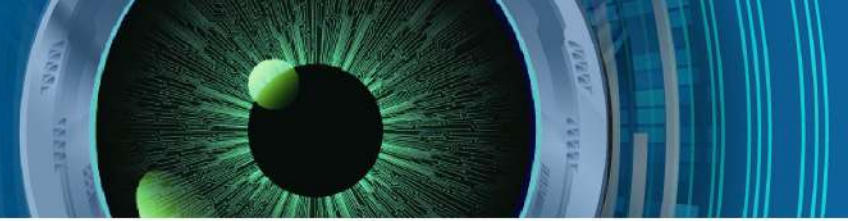


Prof. Paolo Vinciguerra, M.D.
Professor Ophthalmology,
Department of Biomedical Sciences
Humanitas University.

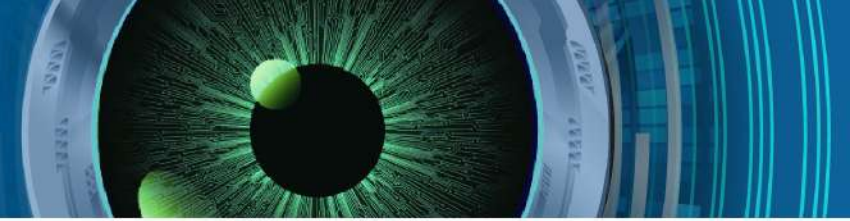


La chirurgia della cataratta a che punto siamo?

- Dalla semplice correzione alla personalizzazione e perfezionamento della visione
- Non partiamo dalla lente ma dal paziente!
- Cosa succede alla qualità ottica del paziente?



- a cataratta è cambiata... e anche la IOL
- Non solo recuperare la BCVA
- Obiettivo attuale: **qualità visiva + range di visione + indipendenza dagli occhiali**
- Personalizzazione del risultato refrattivo
- Aspettative del paziente sempre più elevate
- La IOL è oggi parte integrante del “progetto visivo”



. Dysphotopsia: il prezzo dell'ottica avanzata

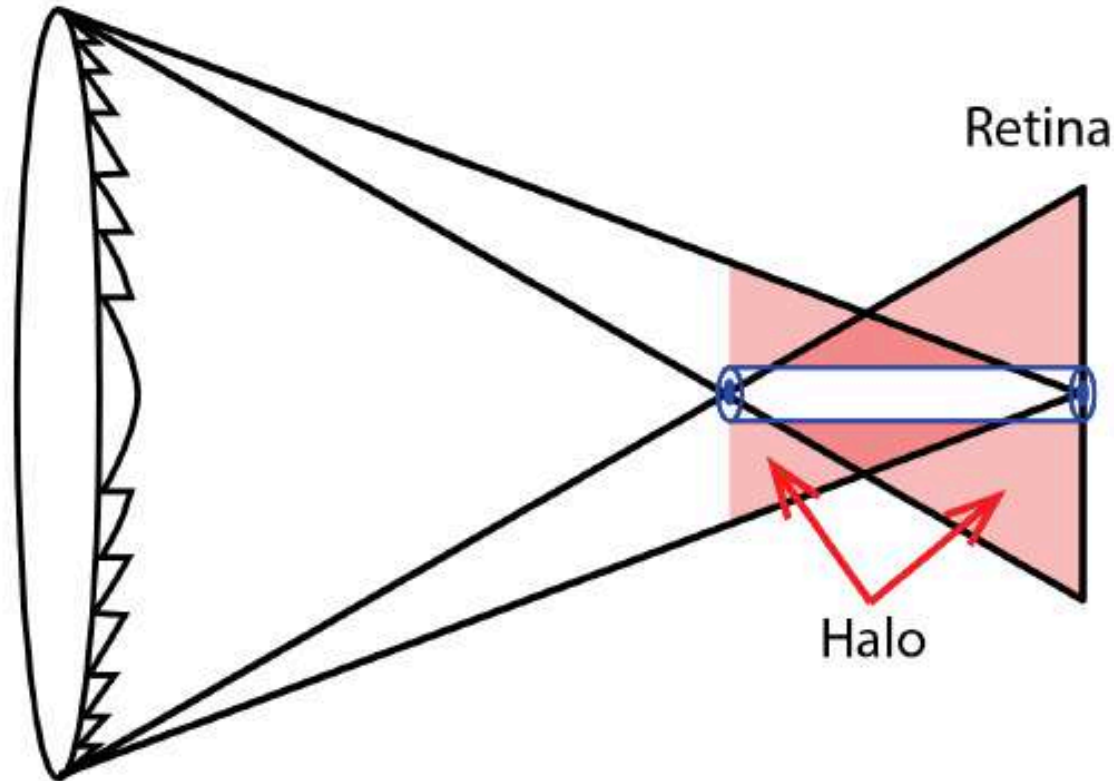


Figure 6: Diffractive lenses split the light into two or more foci. Here, a bifocal diffractive lens creates two distinct foci within in channel. While these rays again come to focus within the EDOF channel, away from these points, the rays lay outside of the channel leading to halo.

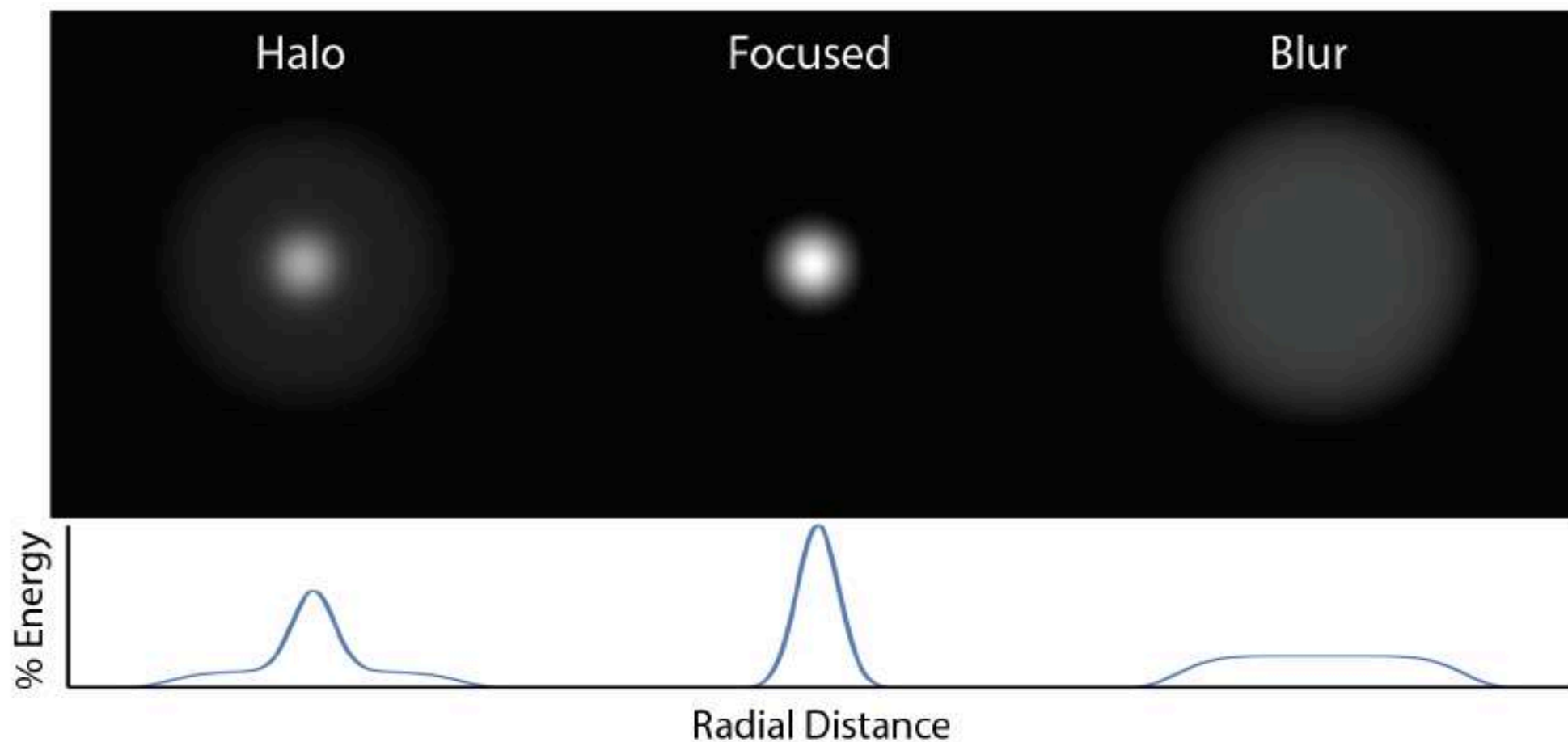
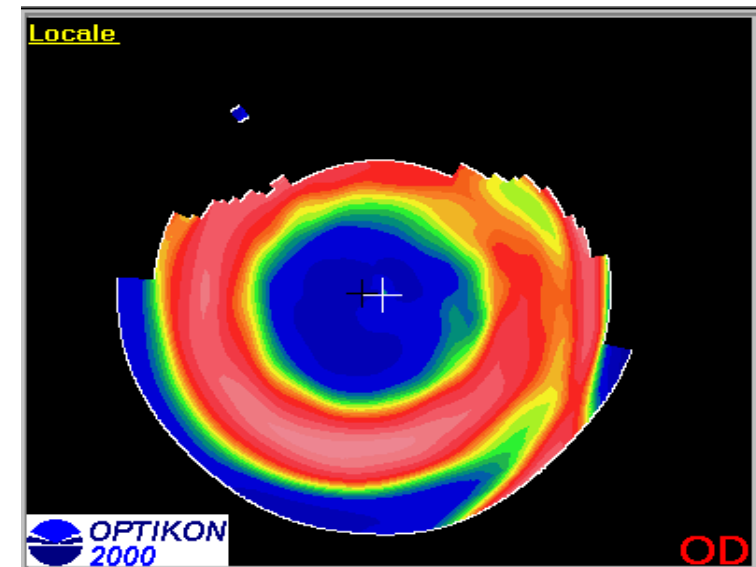
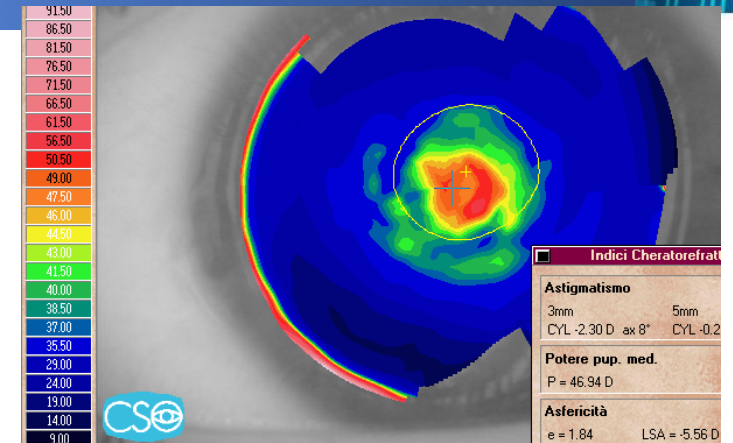
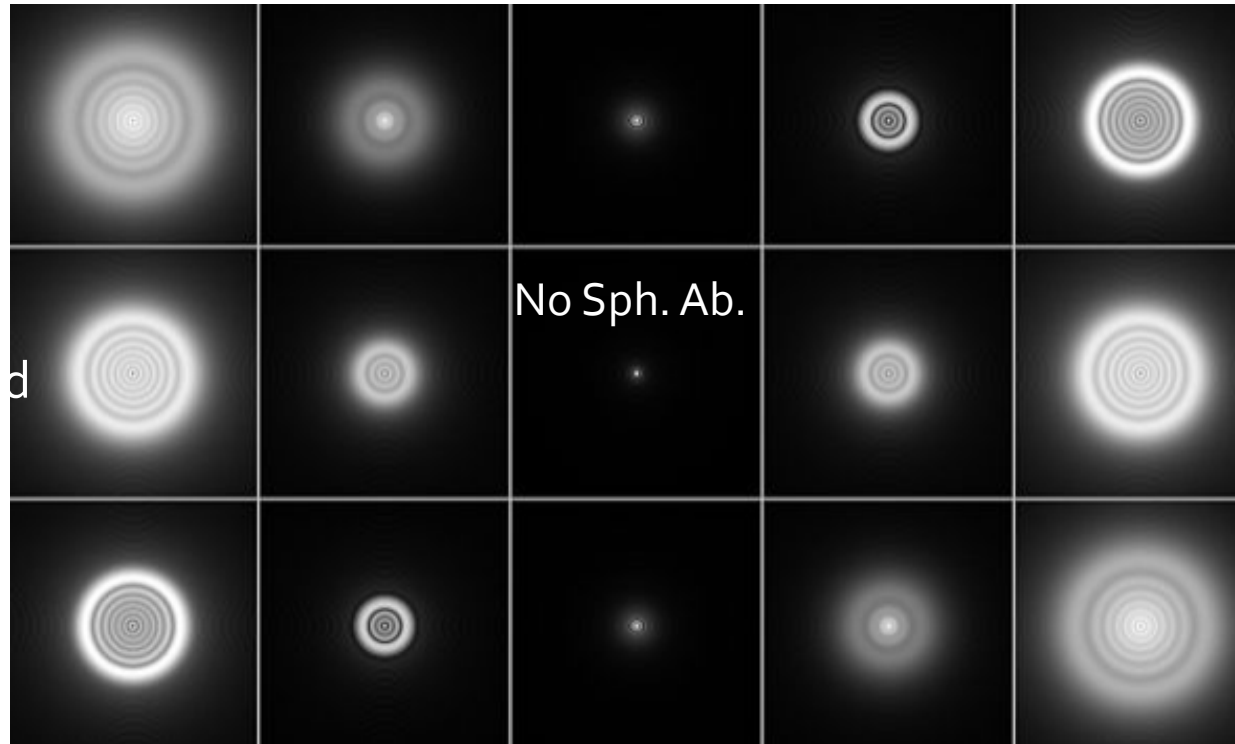


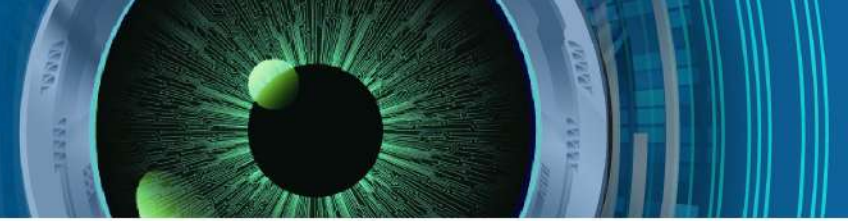
Figure 3: Comparison of halo and blur to an in focus spot. Blur tends more uniformly distributed over a spot, whereas halos have a portion of their energy concentrated in the center of the spot.

Sph. Aberration does not increase D.O.F.



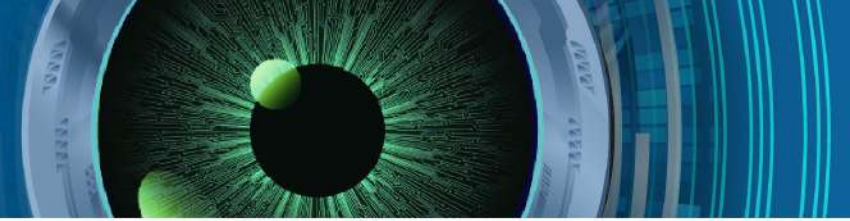
Visual quality with or without spherical aberration



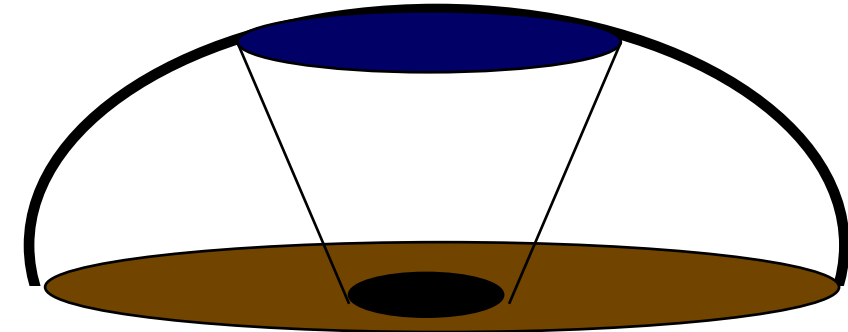
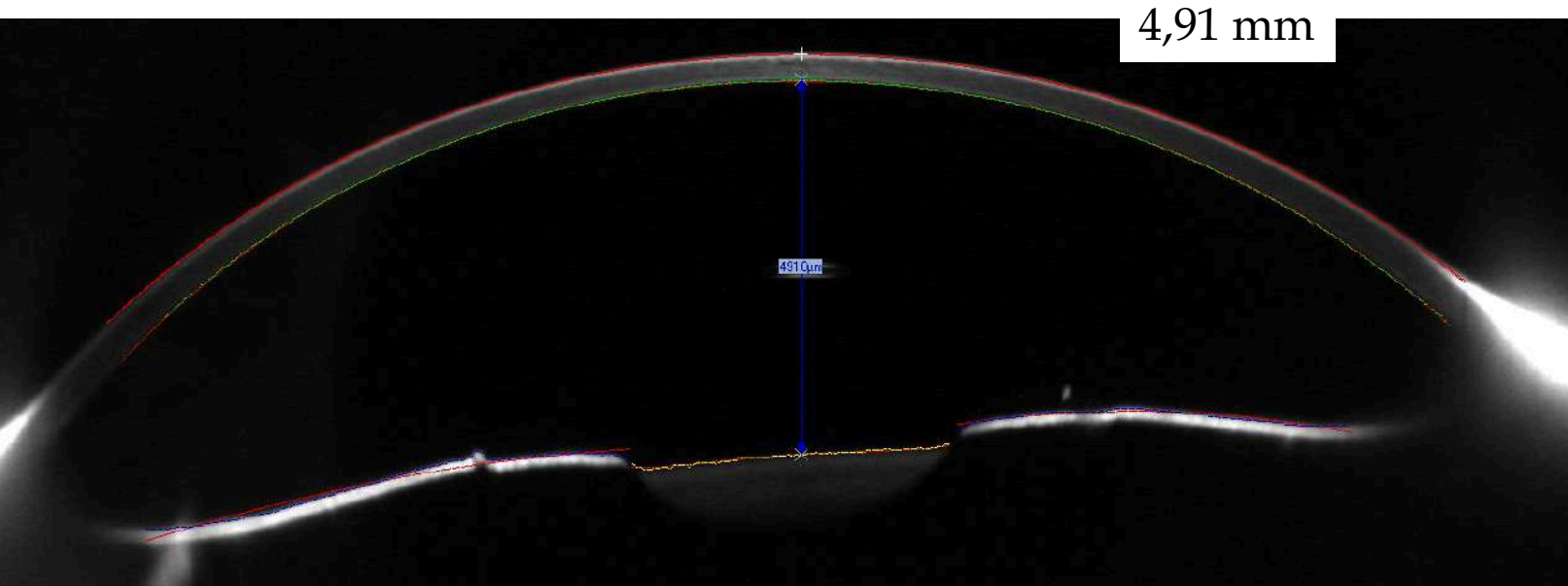


Pupil size and Optical aberration 1°

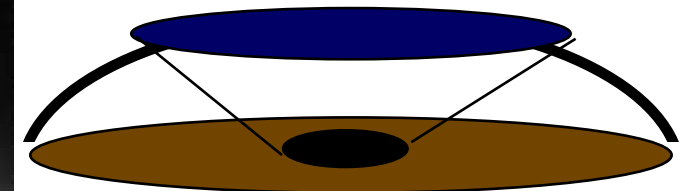
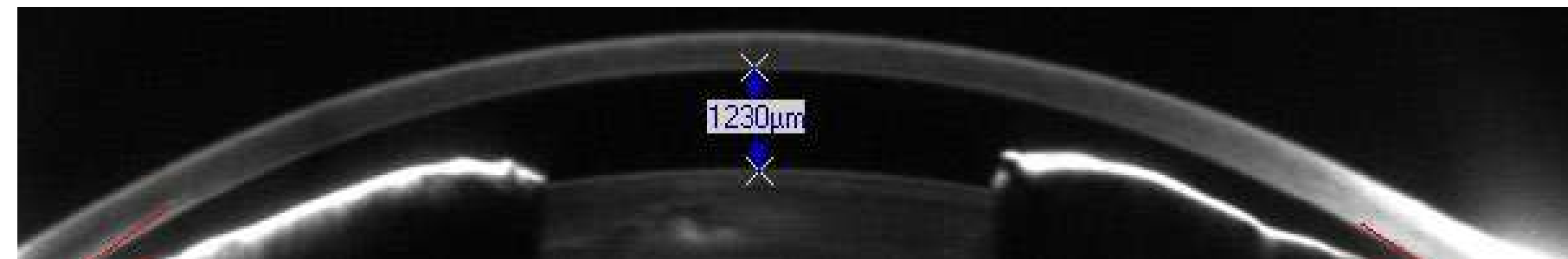
- Sph. Ab. grows at the r^4 (example if the pupil of 2 mm double the Sph. Ab. Increase by factor of 32)
- Coma at r^3
- Astigmatism no influence
- Chromatic Aberration no influence



Pupil Size Anth. Chamber and O.Z.,

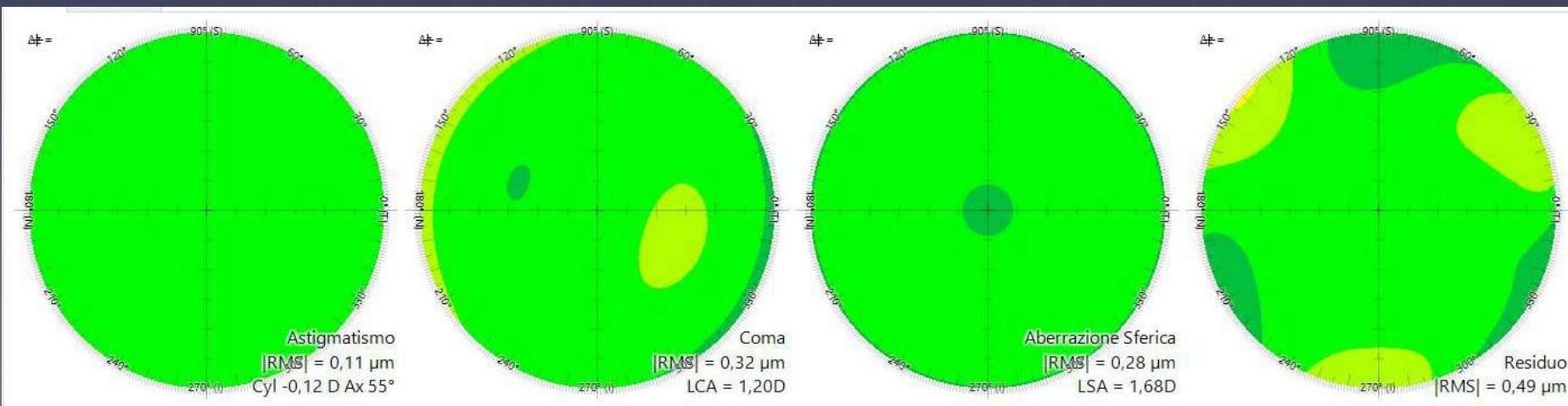
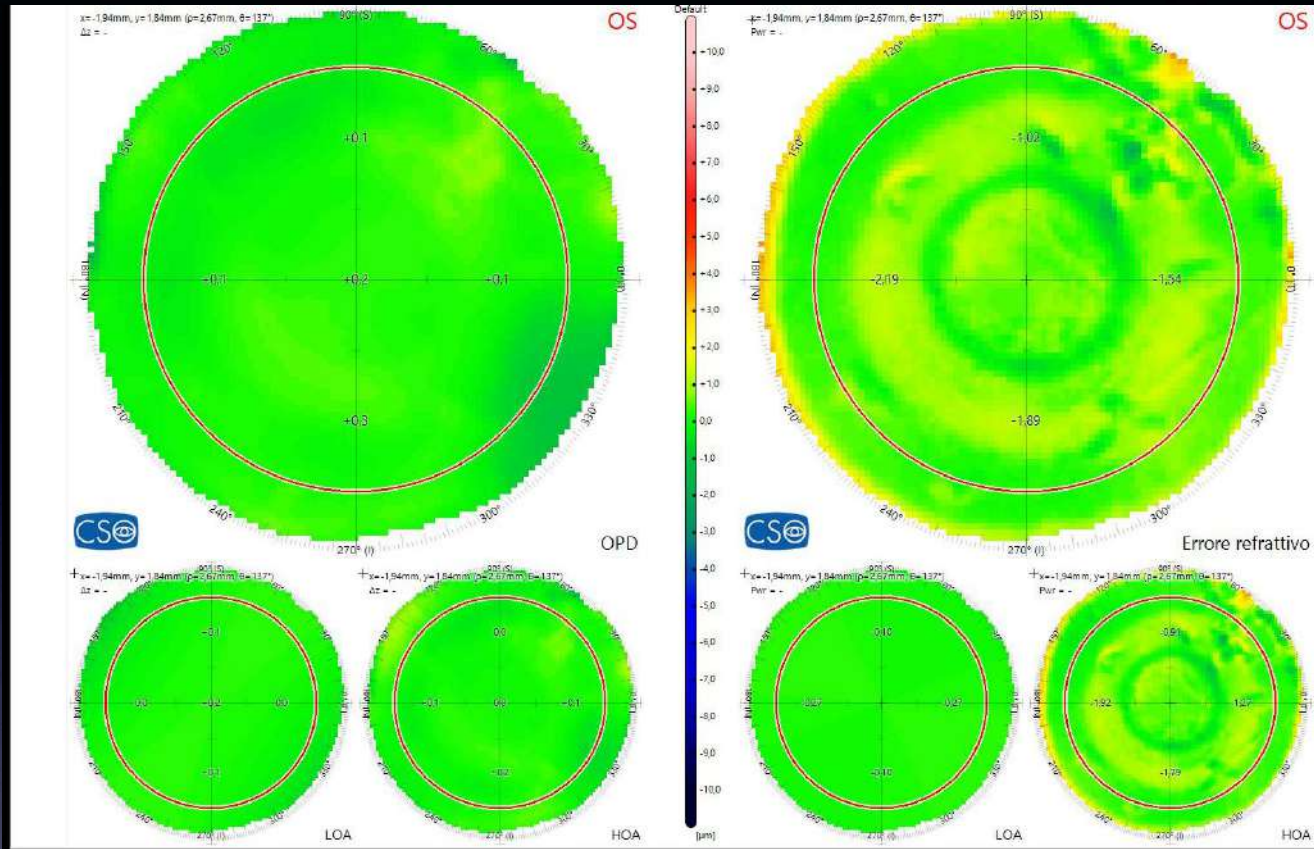


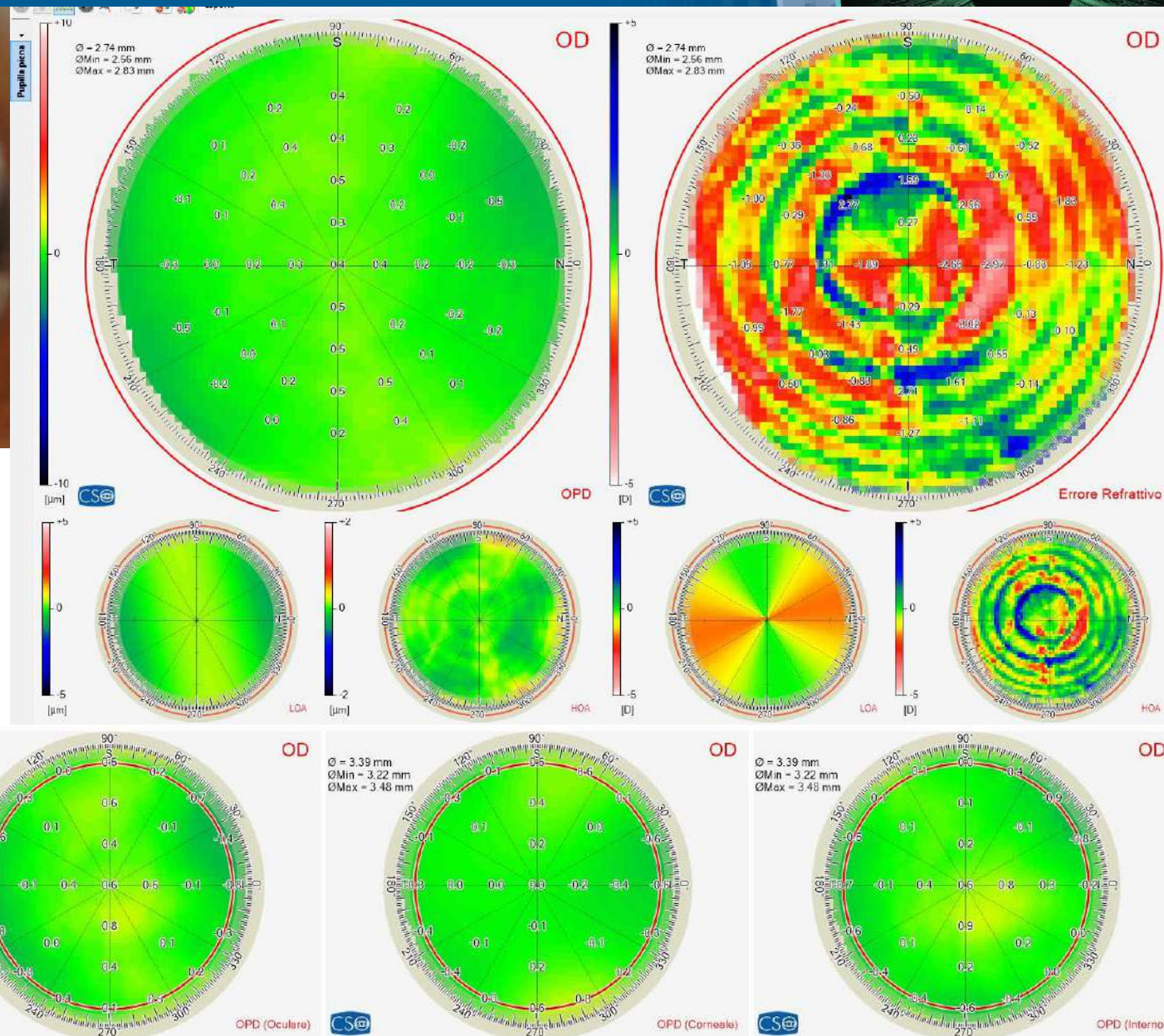
1,23 mm



IOL OS Vivity +25 D

Una buona acuità visiva significa necessariamente una buona qualità visiva?"

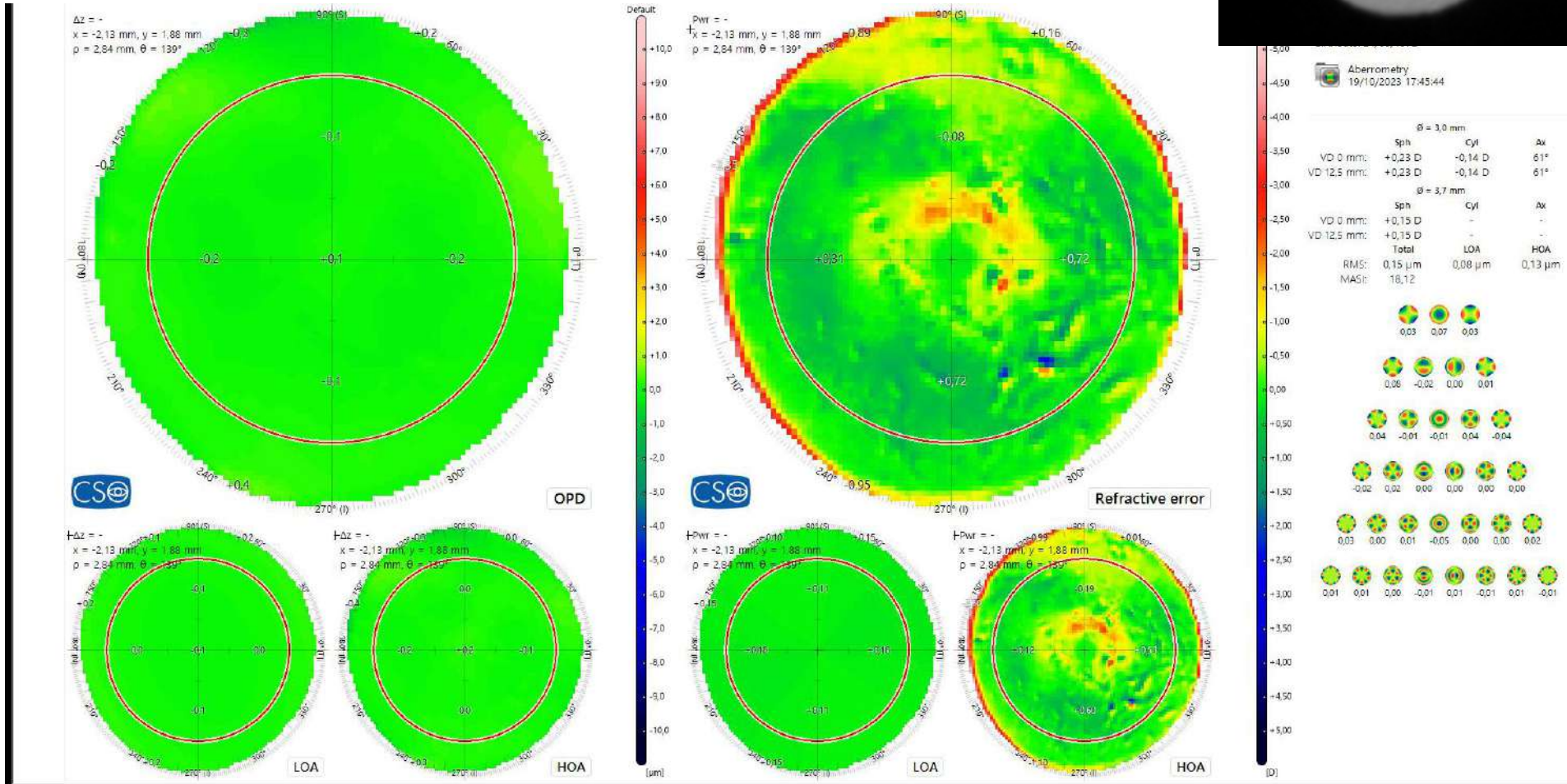




Restore IOL

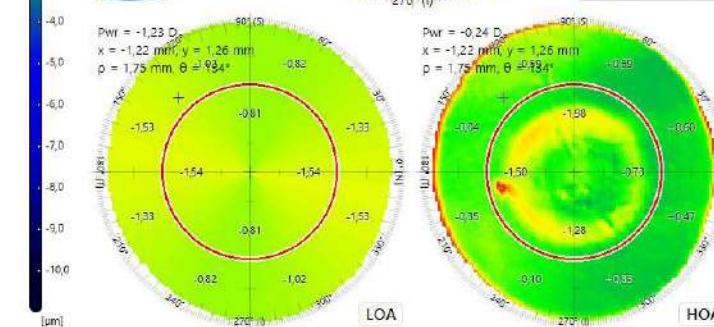
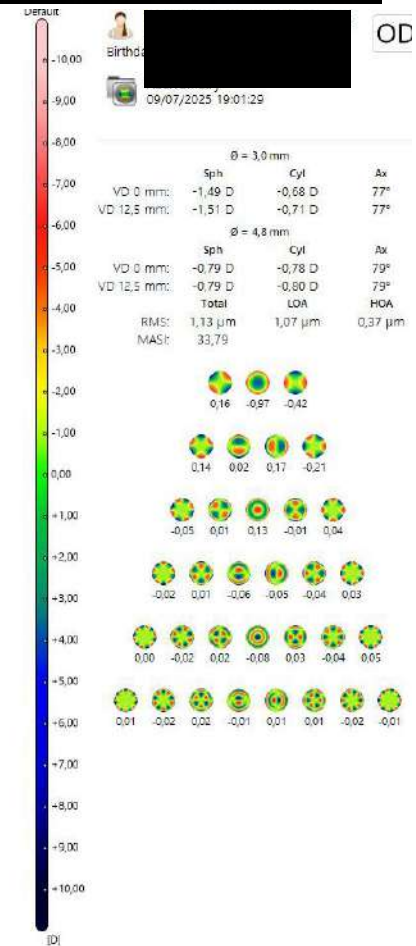
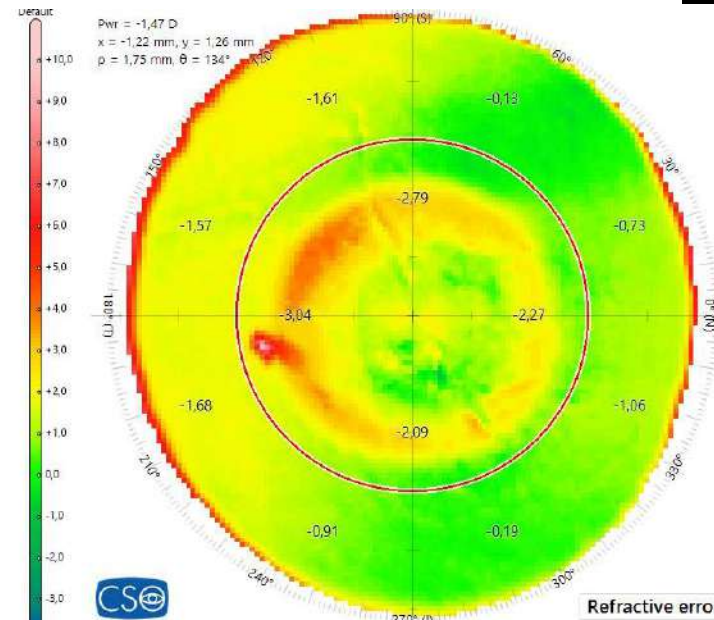
La stessa BCVA
 può
 corrispondere a
 profili ottici molto
 diversi.”

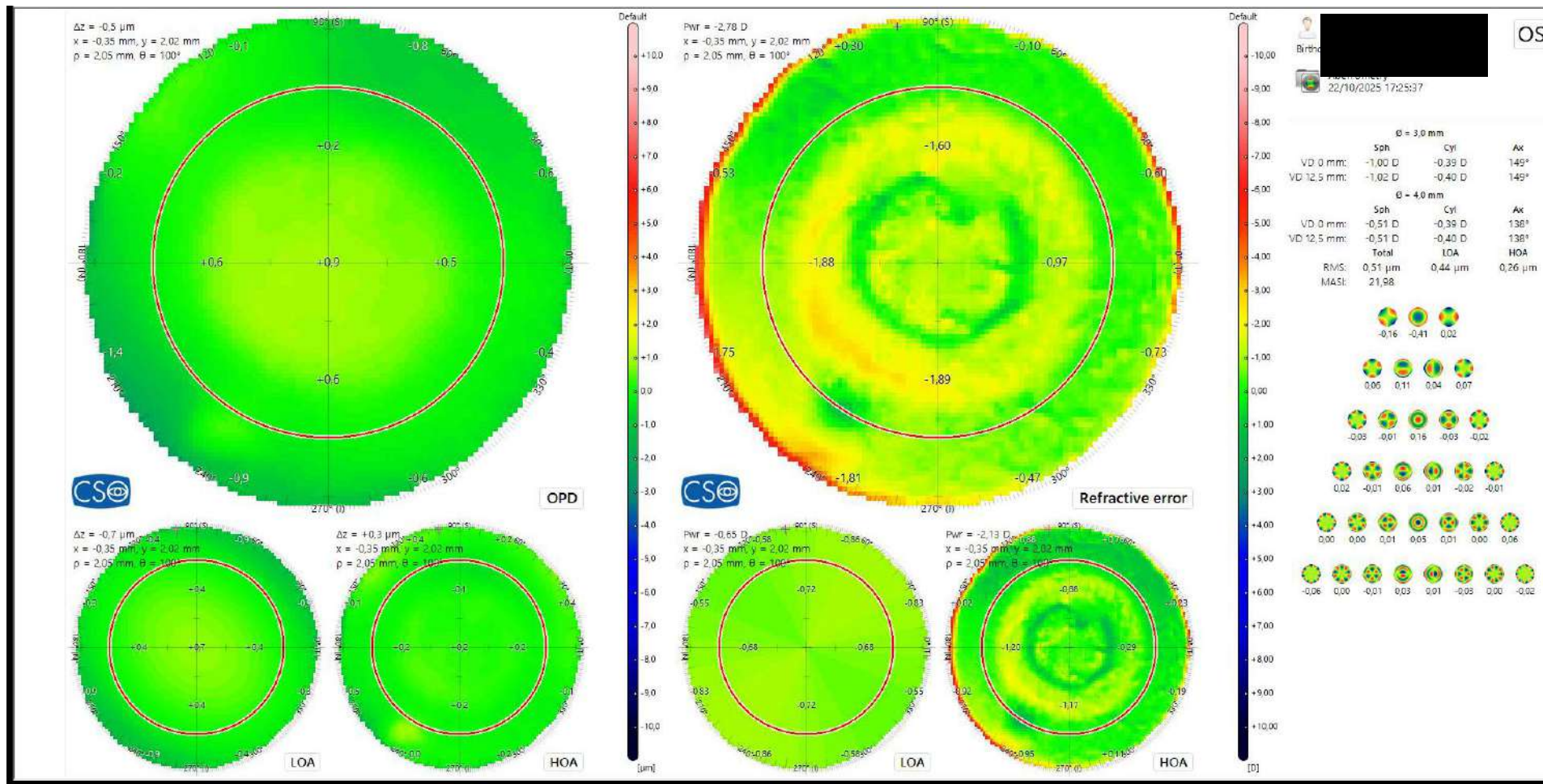
TECNIS® Eyhance™



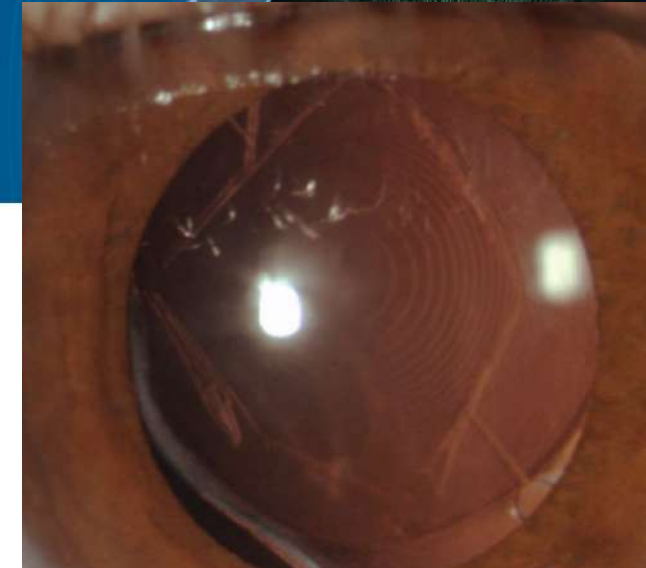
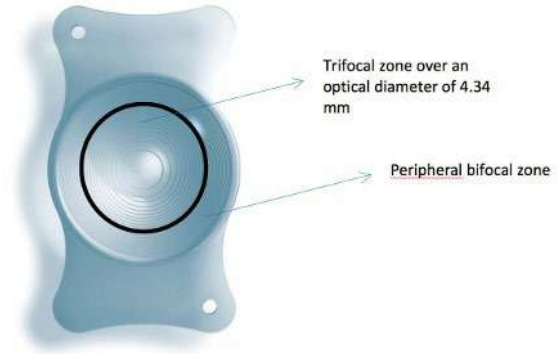
A circular, textured object, possibly a coin or a small disk, centered on a black background. The object has a mottled, greyish appearance with some darker and lighter patches, suggesting a rough or aged surface. It is perfectly circular and occupies the central portion of the frame.

OD

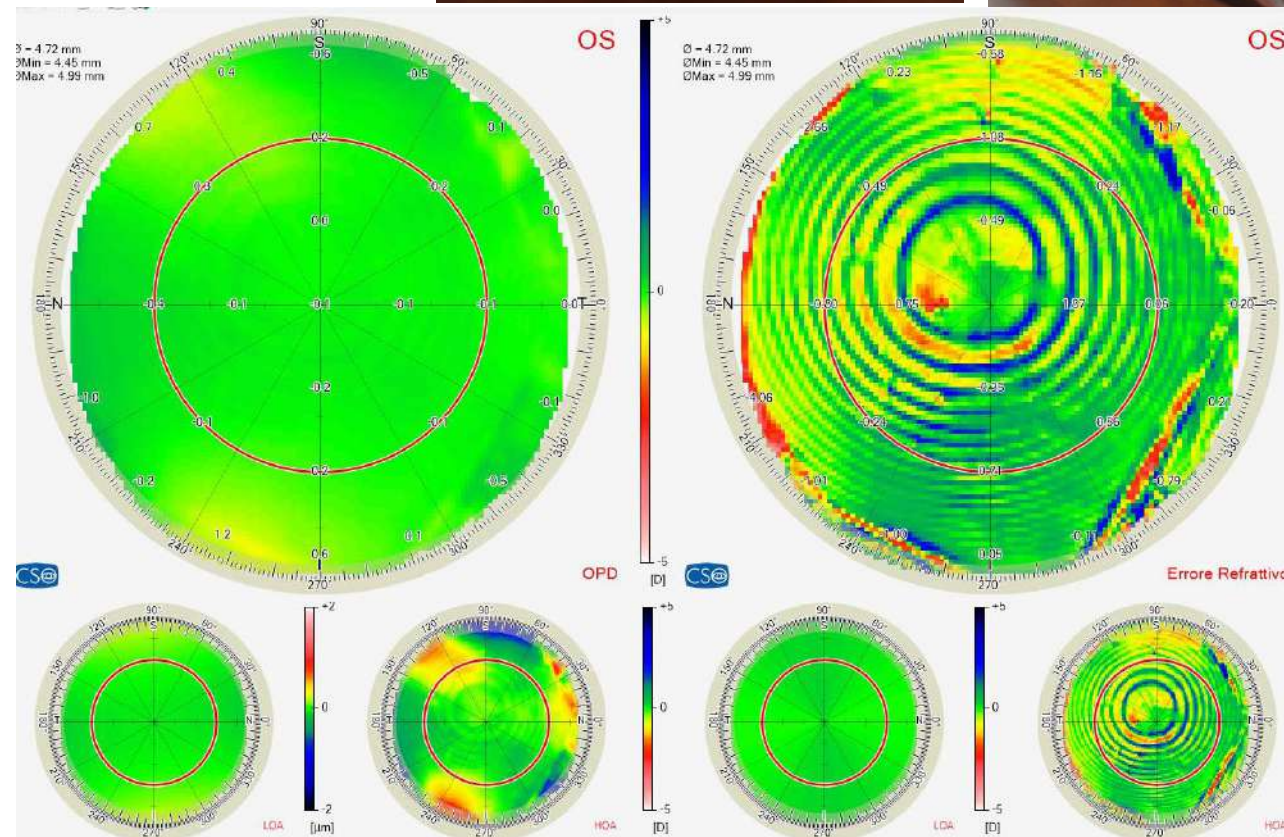




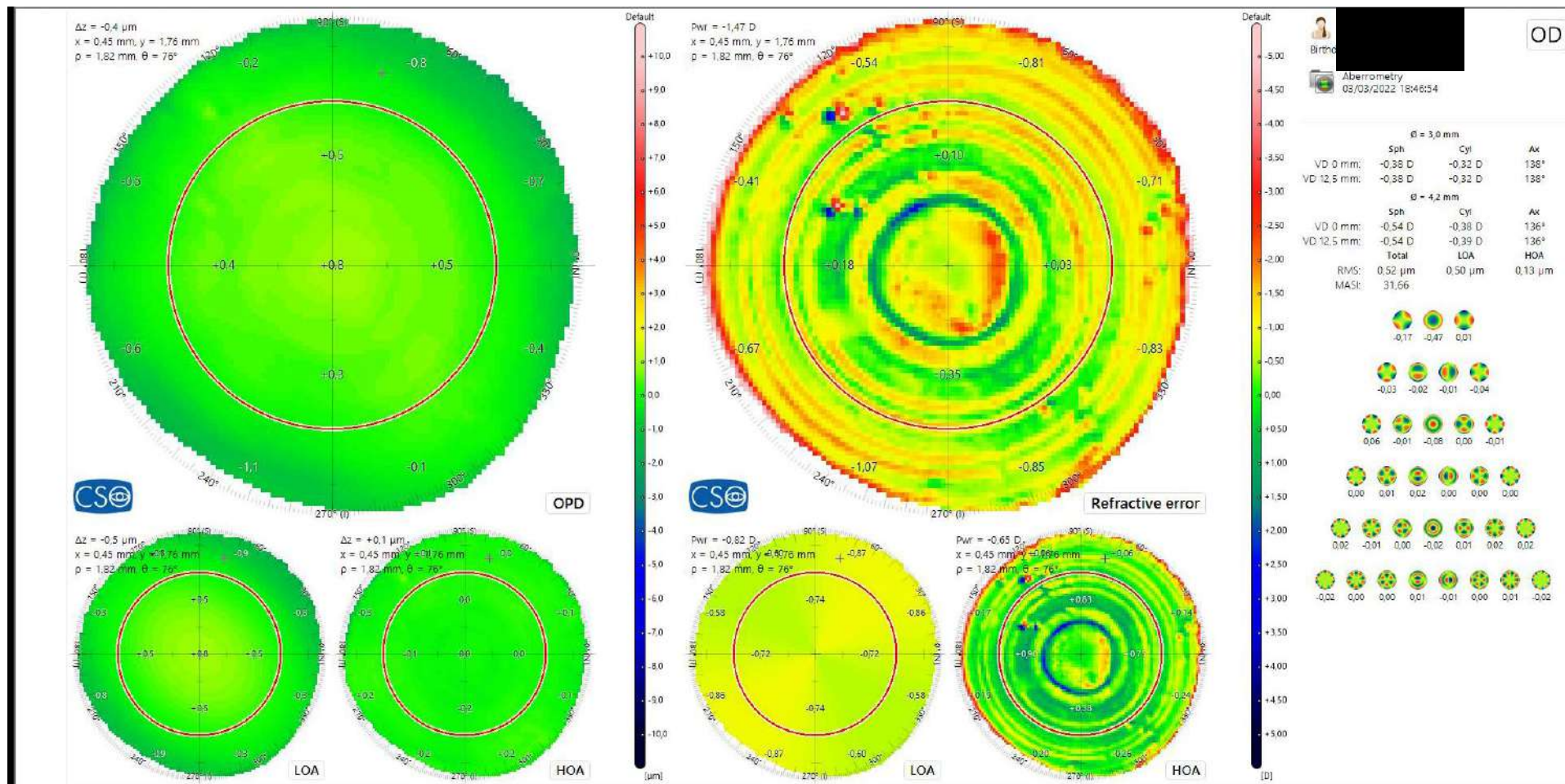
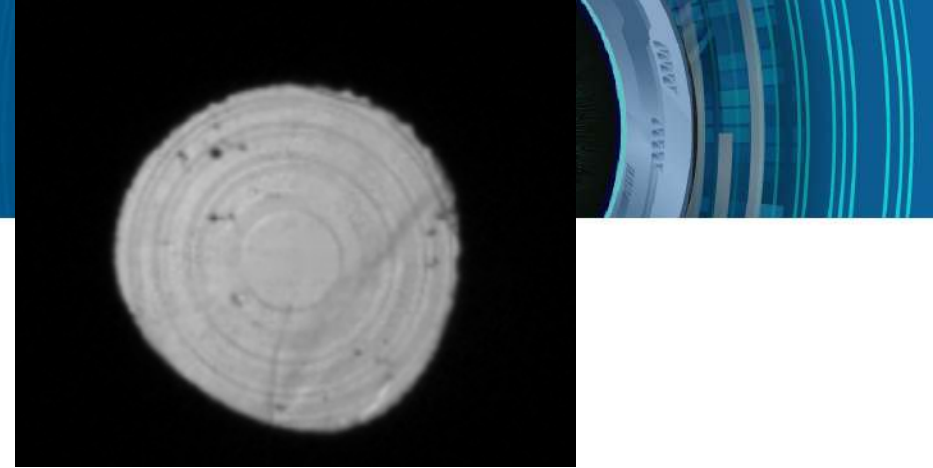
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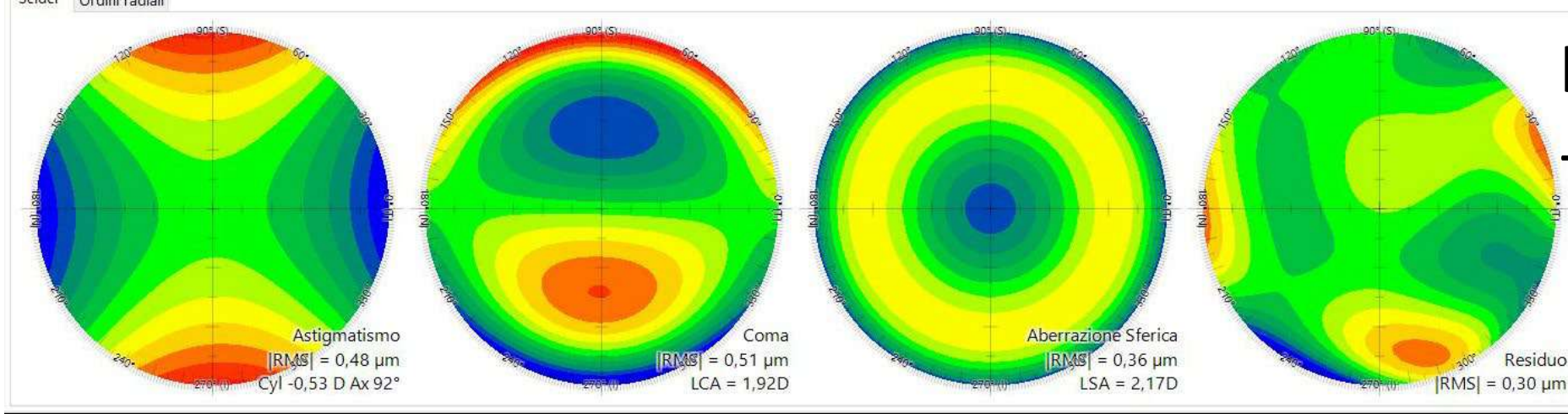
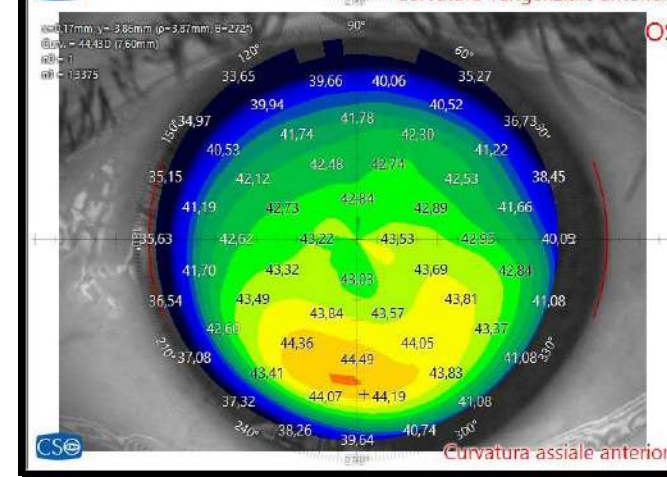
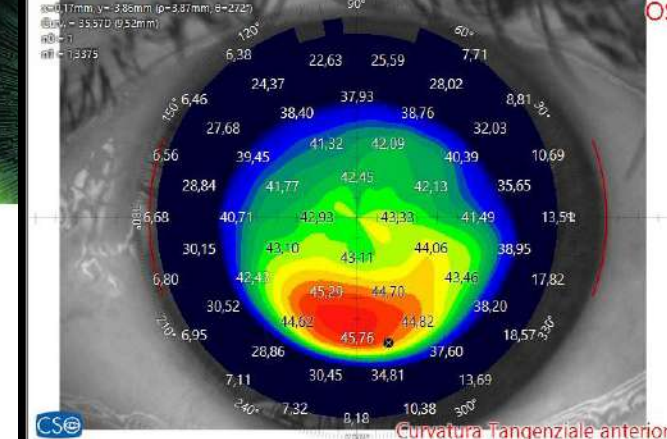
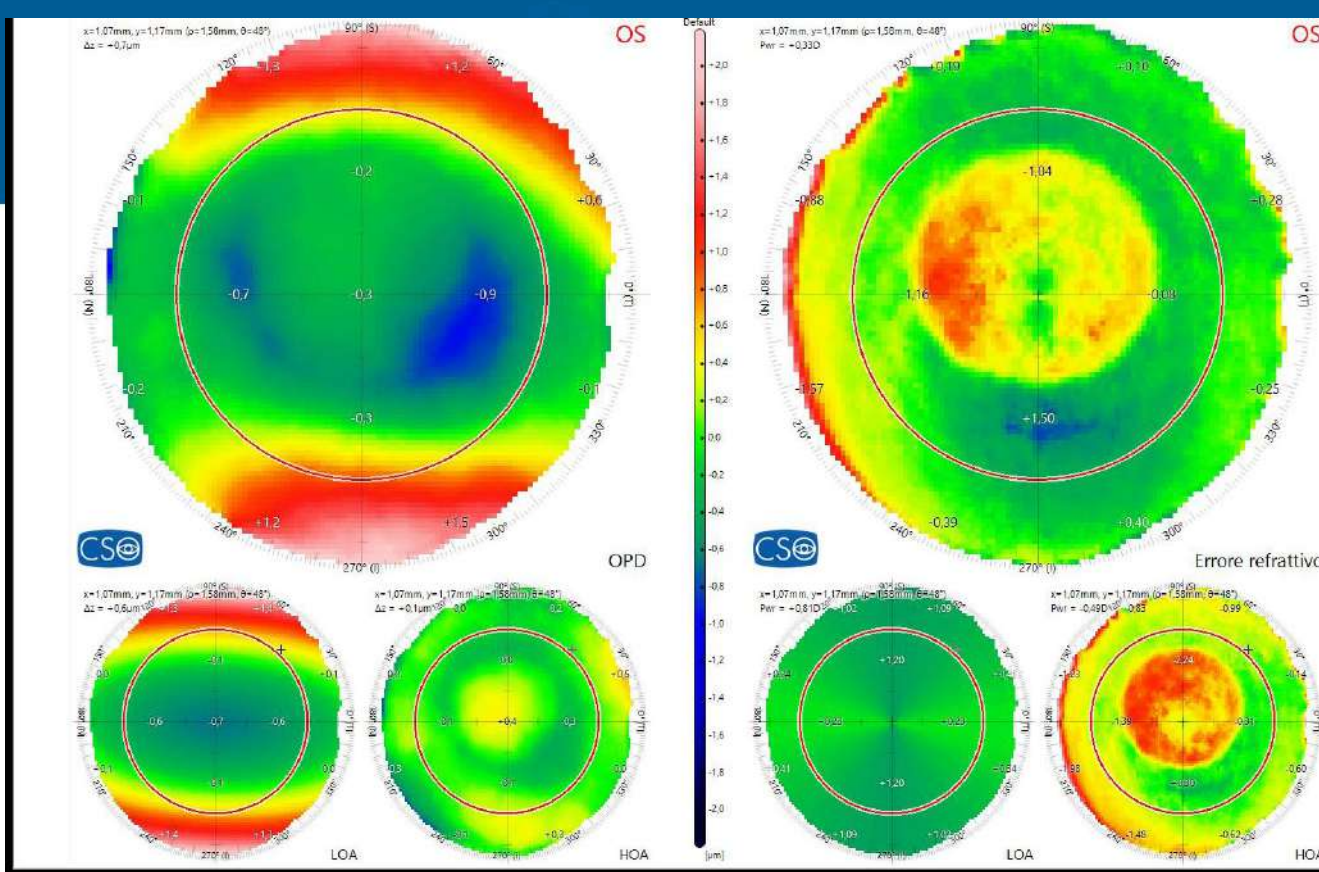


AT LISA toric 909M

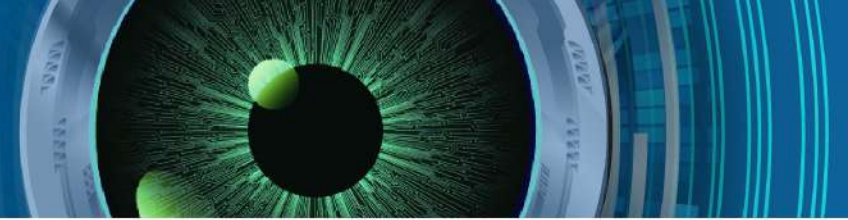


IOL Trifocale Clareon® PanOptix®



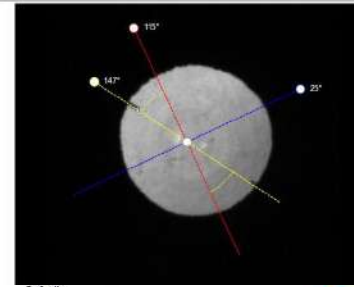


IOL EVOLVE
+20,5 D Soleko

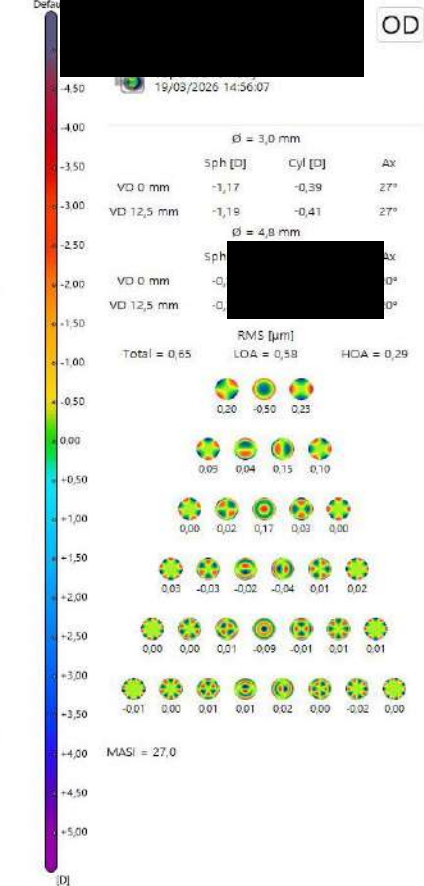
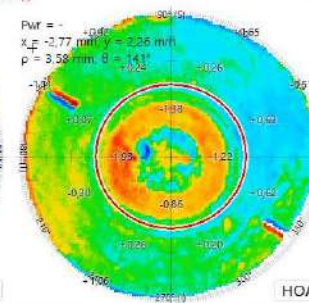
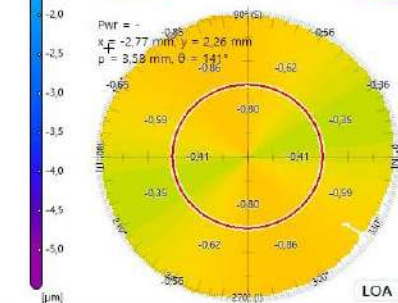
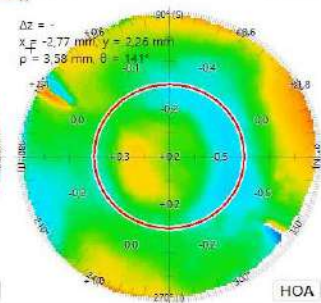
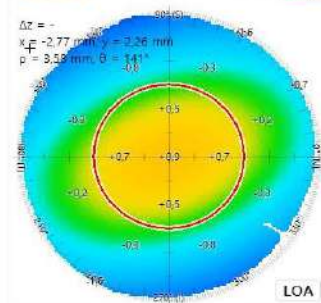
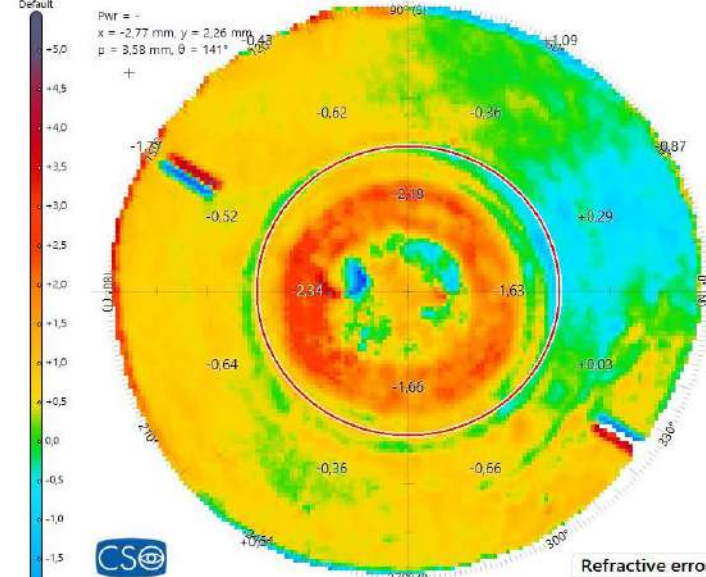
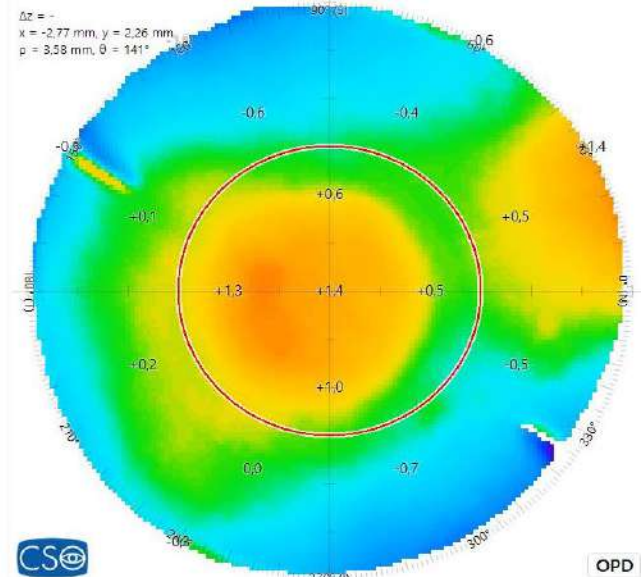
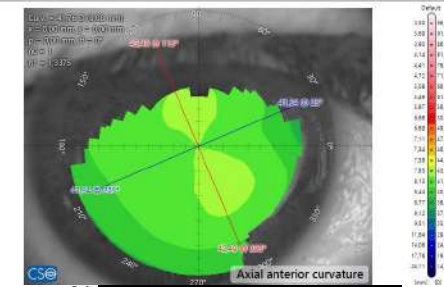


RayOne Galaxy Toric Spiral IOL

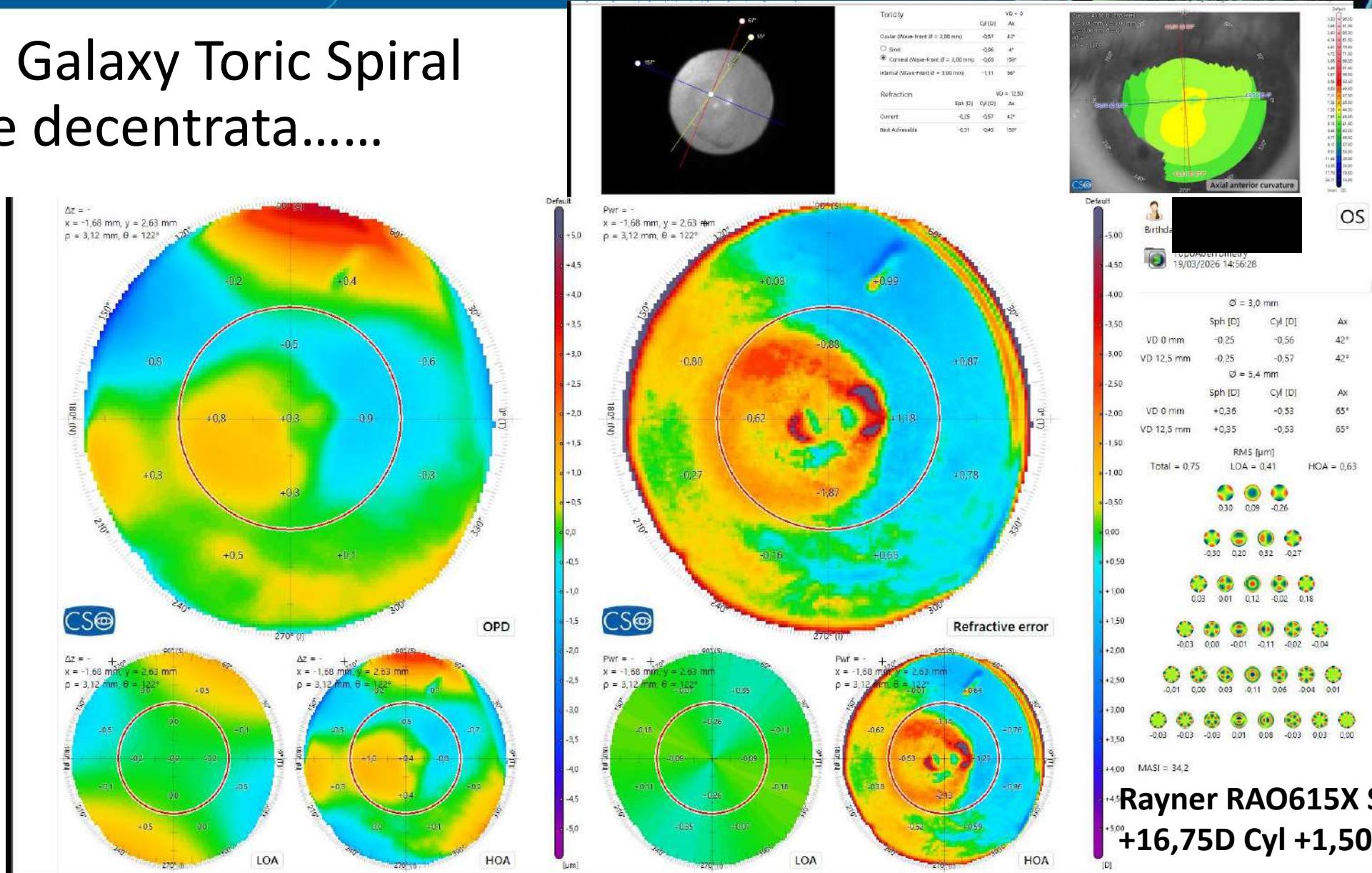
Rayner
RAO615X SE
+18,50D SPH
+18,12d cYL
+0,75D IOL



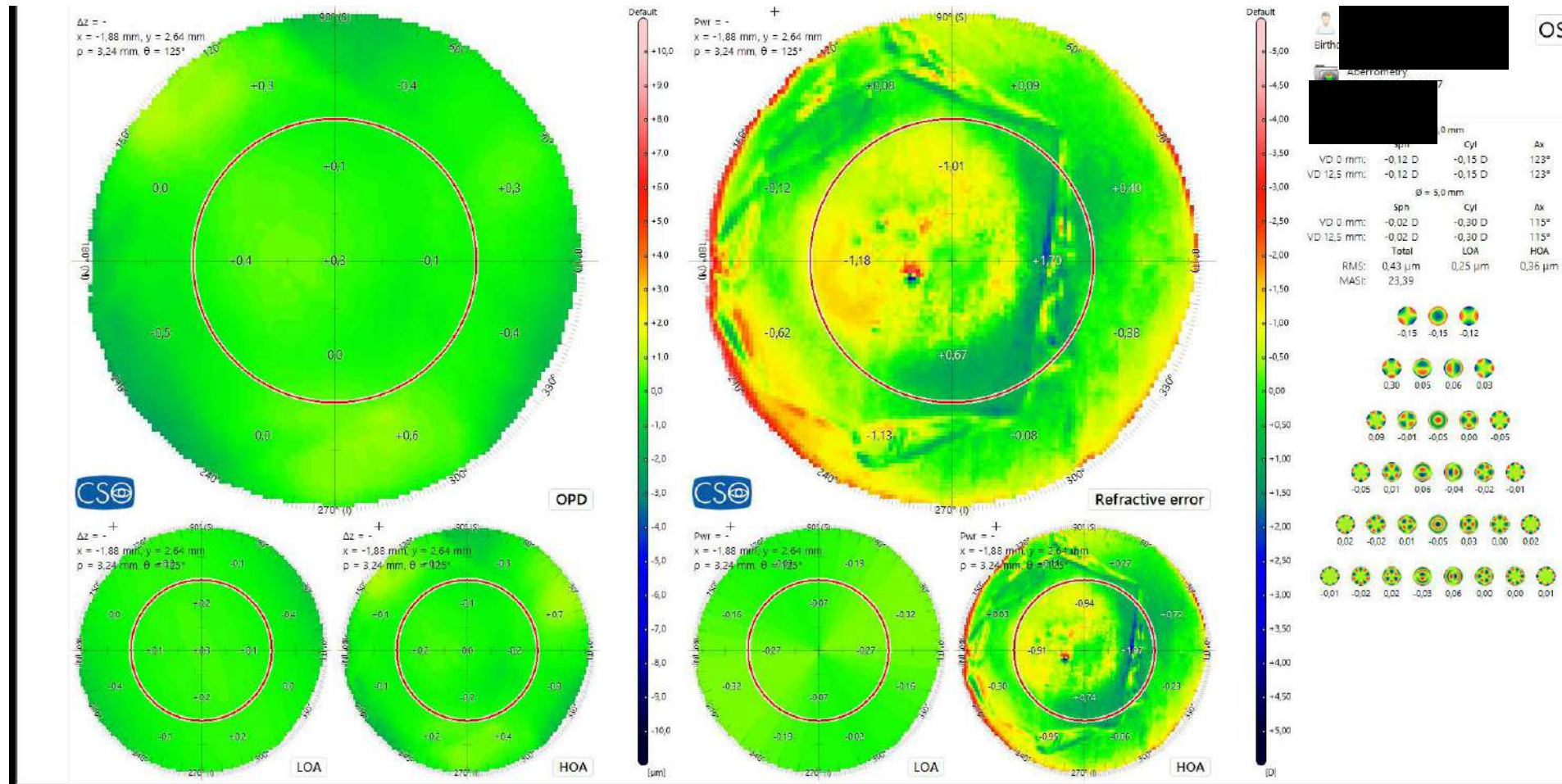
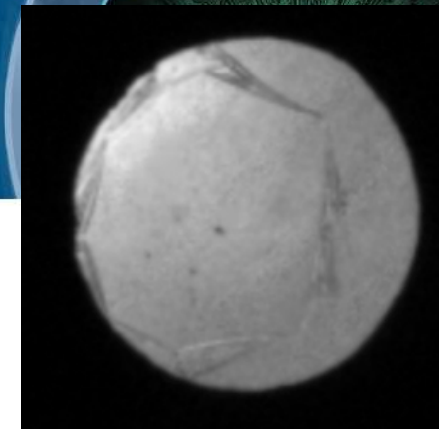
Toricity			
	Cyl [D]	Ax	
Outer (Wave-front Ø = 3.00 mm)	-0.41	27°	
Inner (Wave-front Ø = 3.00 mm)	-1.15	29°	
Internal (Wave-front Ø = 3.00 mm)	-0.97	29°	
	-0.60	114°	
Refraction			
	Sph [D]	Cyl [D]	Ax
Current	-1.19	-0.41	27°
Best Achievable	-1.19	-0.41	29°



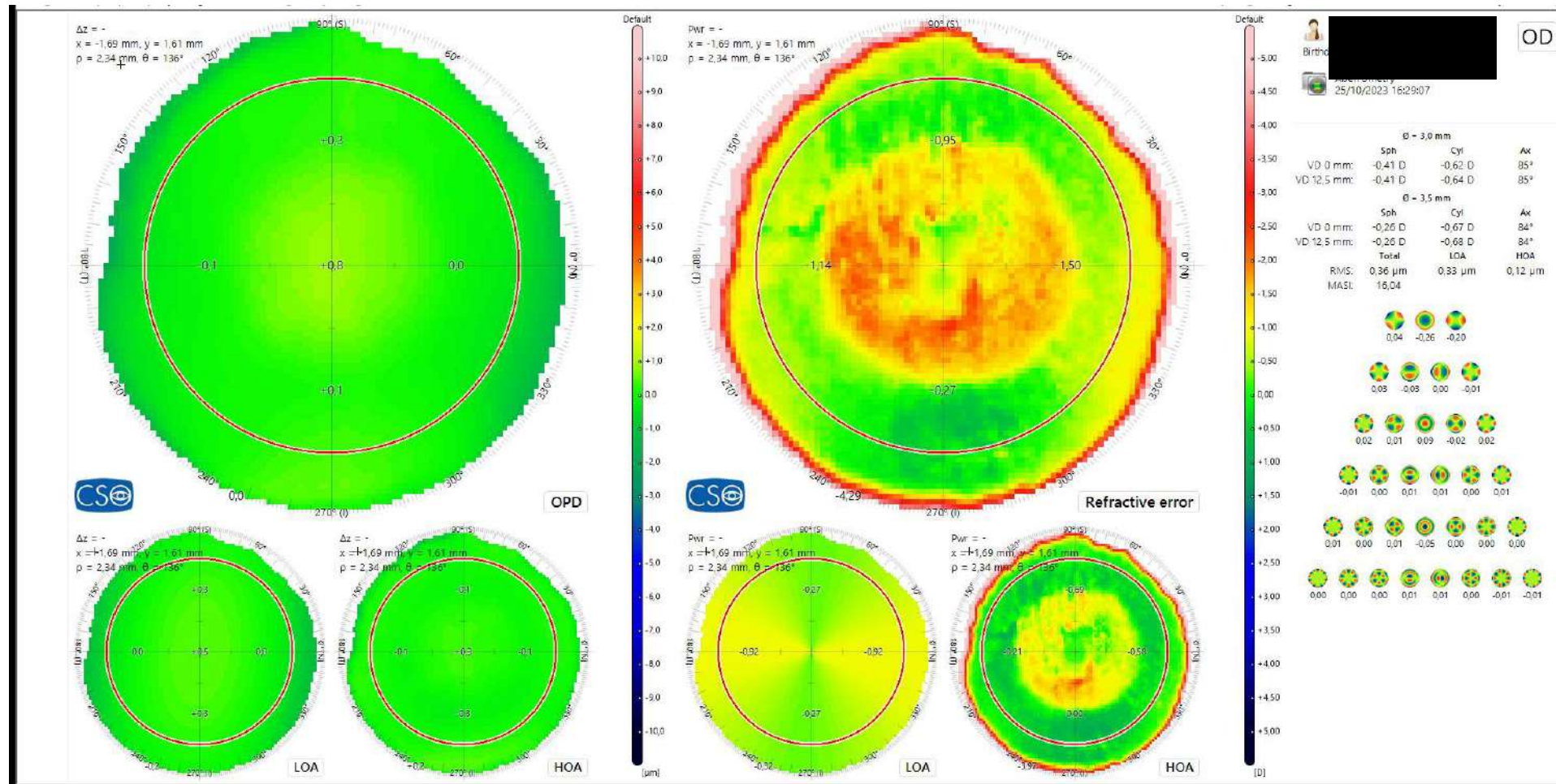
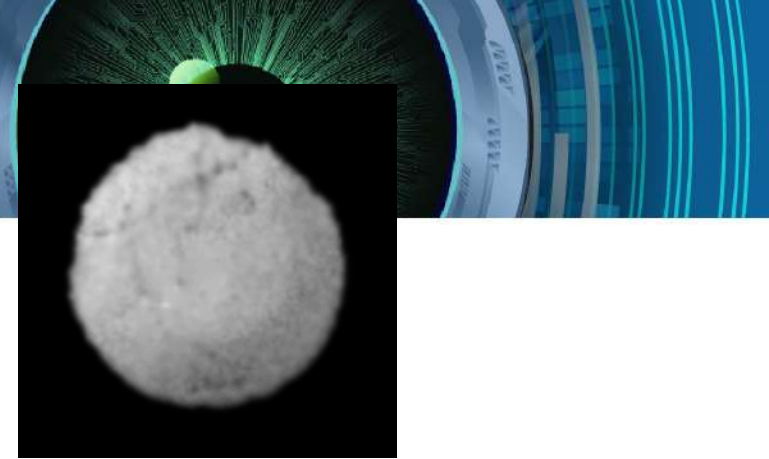
RayOne Galaxy Toric Spiral IOL e se decentrata.....



B&L enVista® Envy™ effetti di una capsulotomia stretta

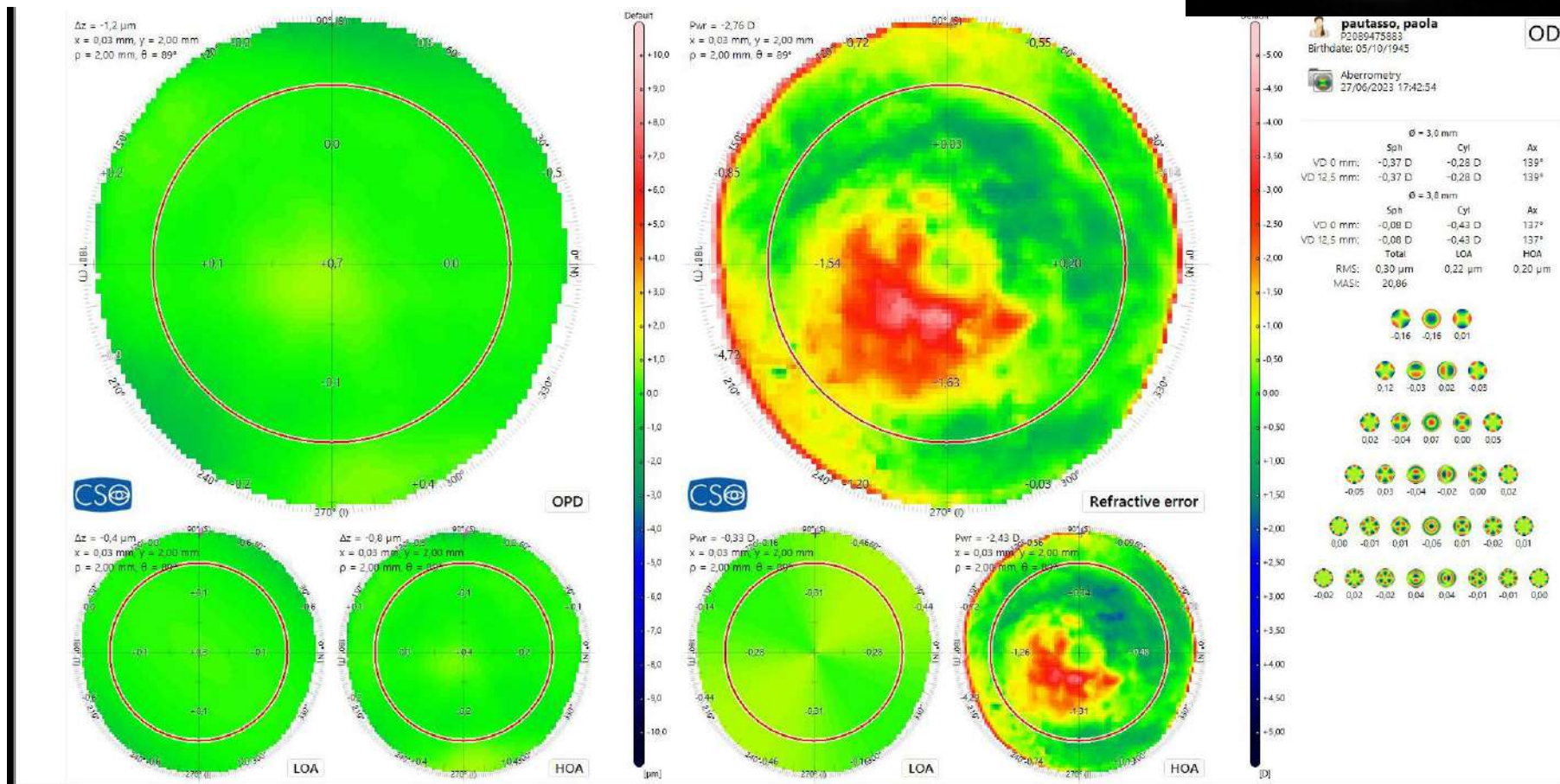


EVOLVE - EDOF IOL SOLEKO

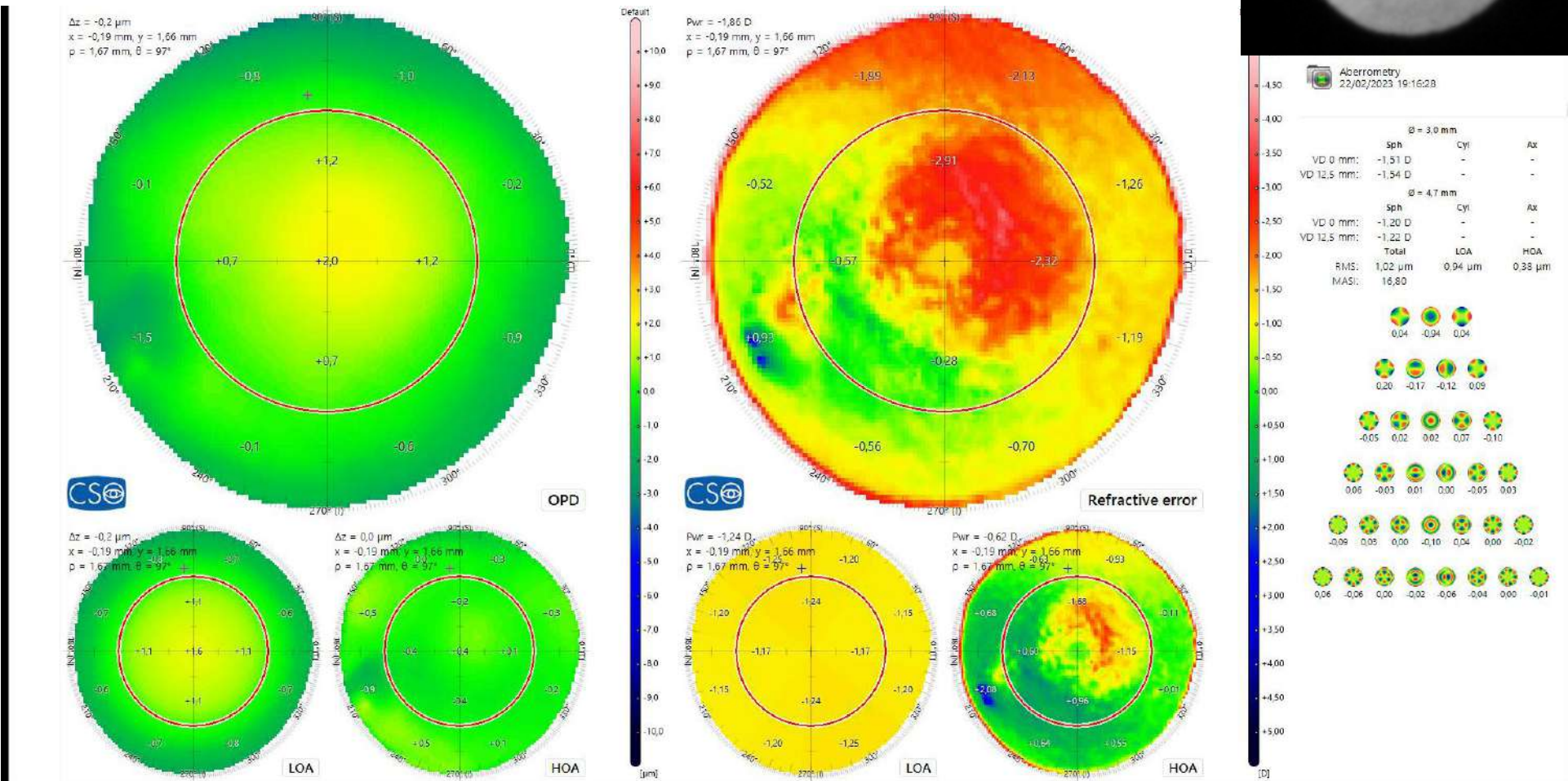


Cosa succede quando la IOL non è perfettamente centrata?

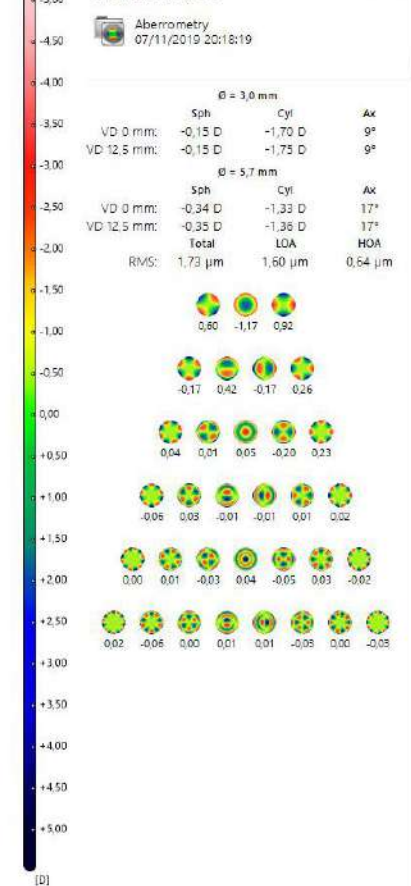
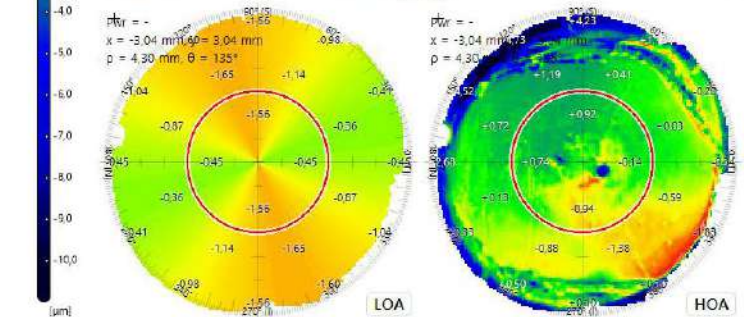
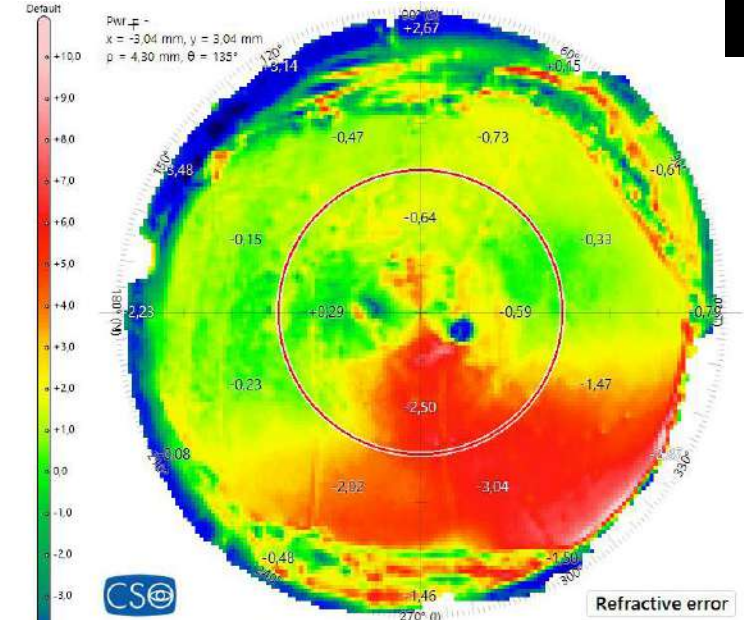
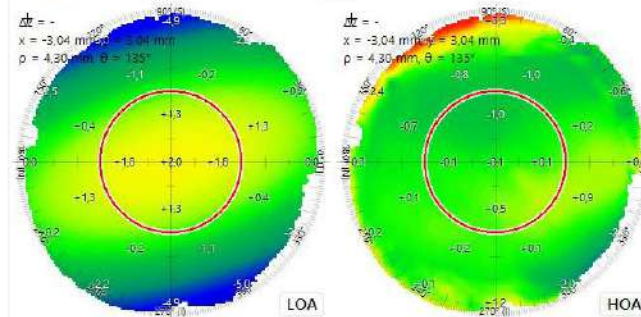
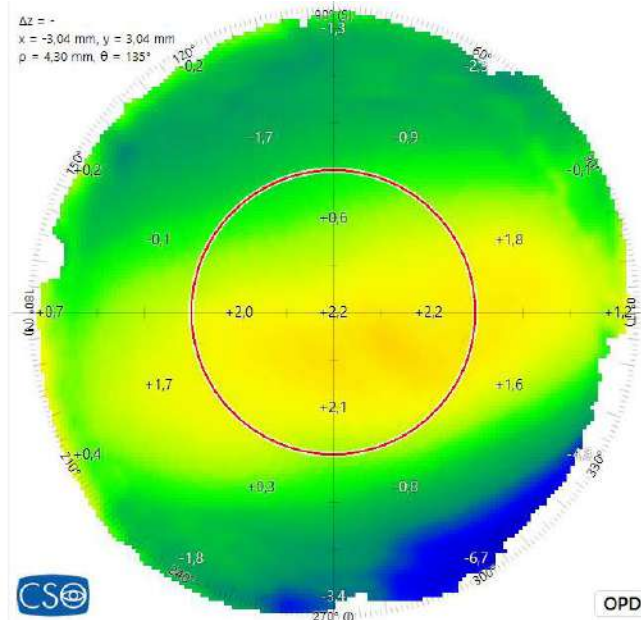
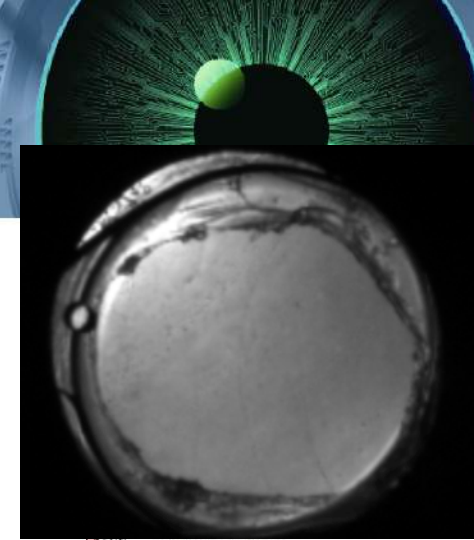
Mini WELL Ready (SIFI Medtech)



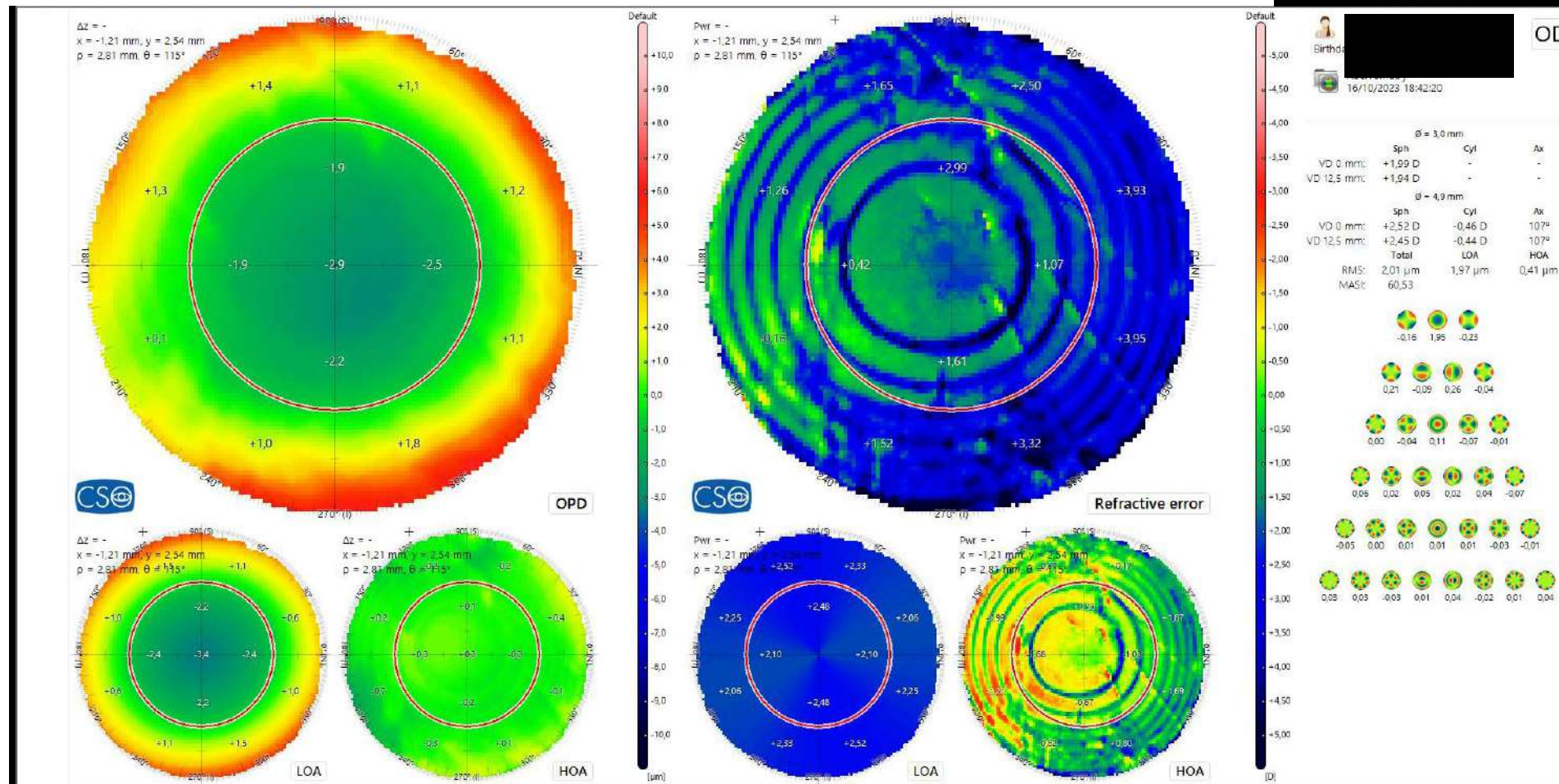
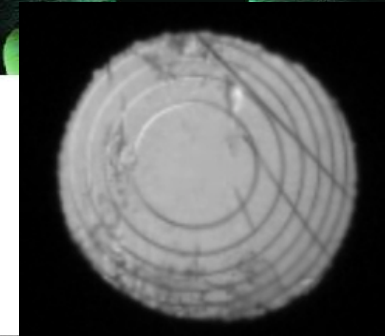
Mini WELL Ready (SIFI Medtech)

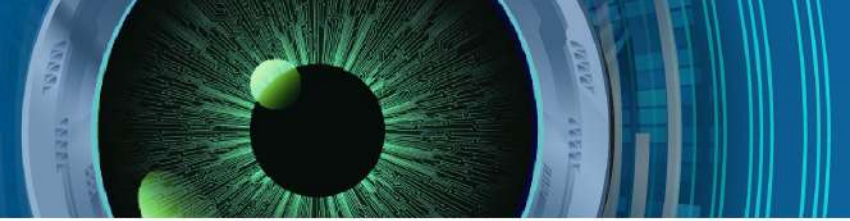


Akreos[®] Adapt AO



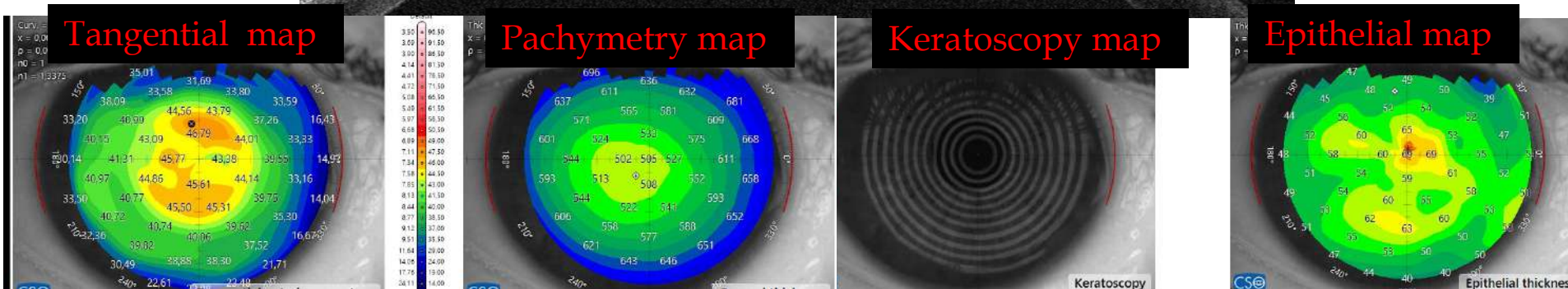
TECNIS Symphony™ OptiBlue™ IOL



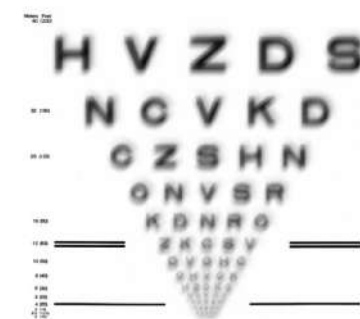


Ma attenzione: la cornea non è la IOL

53 yo (2 yrs later) post op 1,0 +2,00(-1,50)90 ADD +2,00

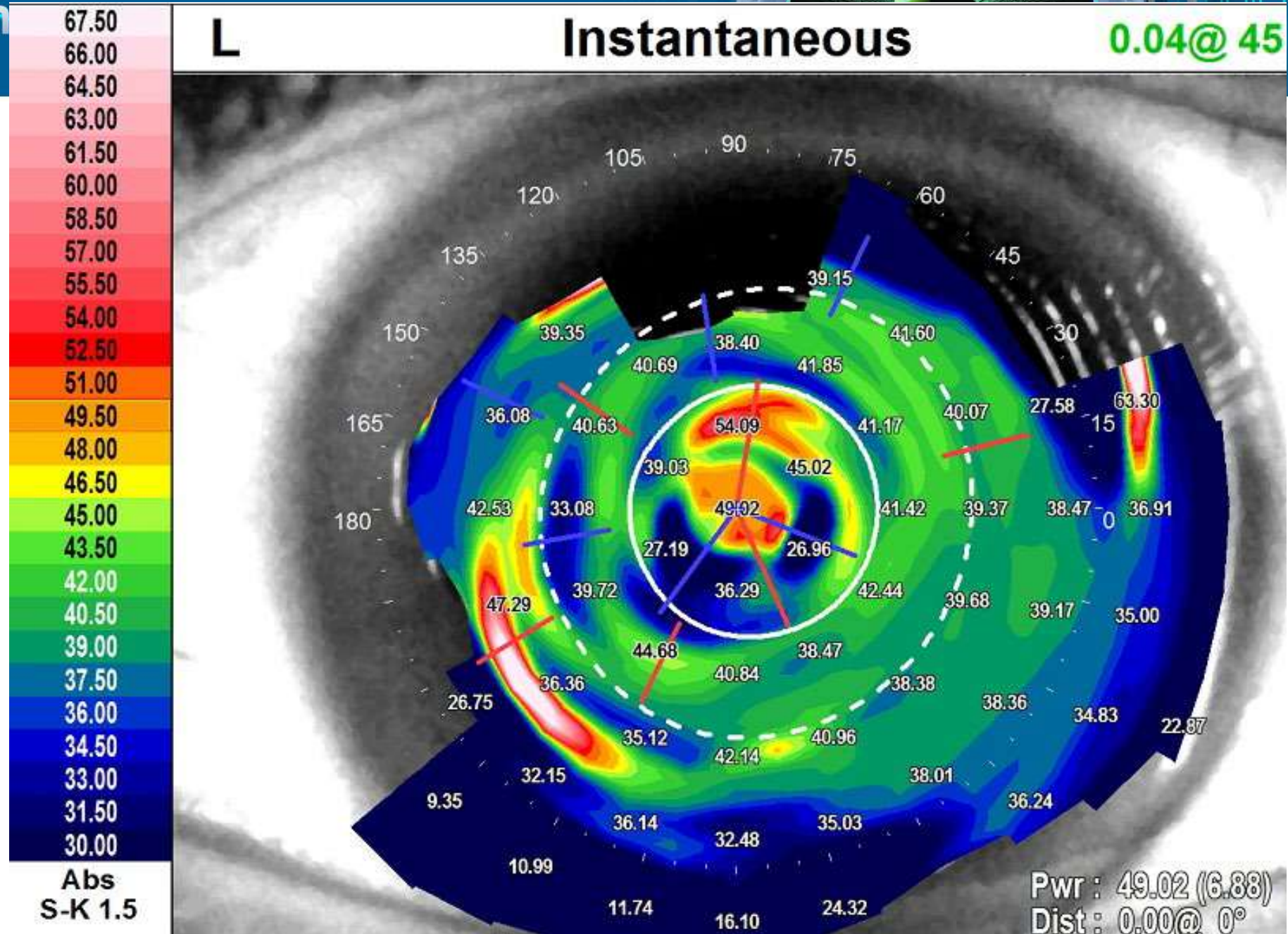


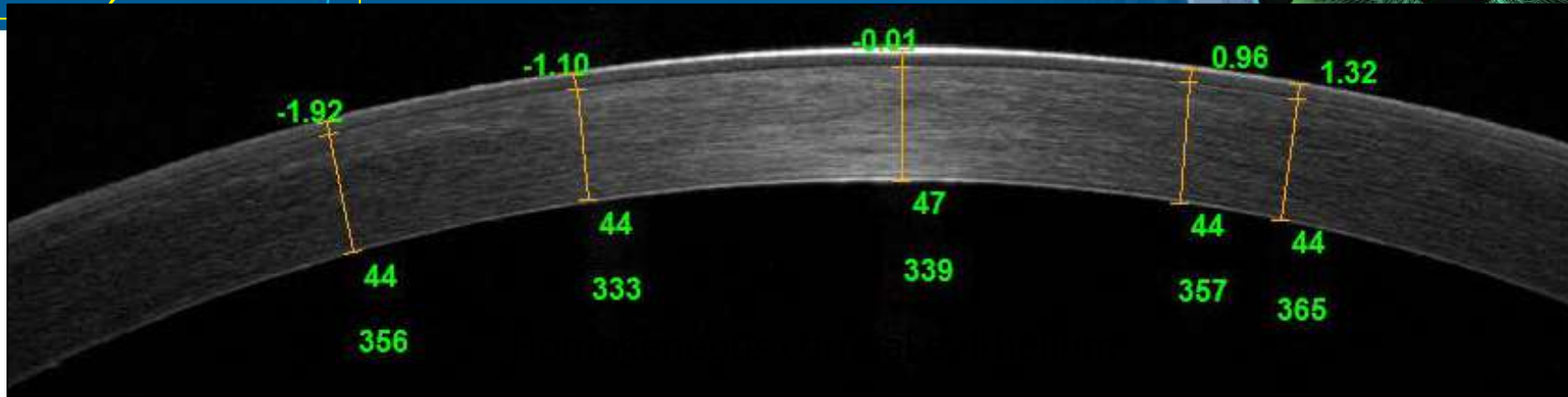
zone 7 mm



Which K values
in this case?

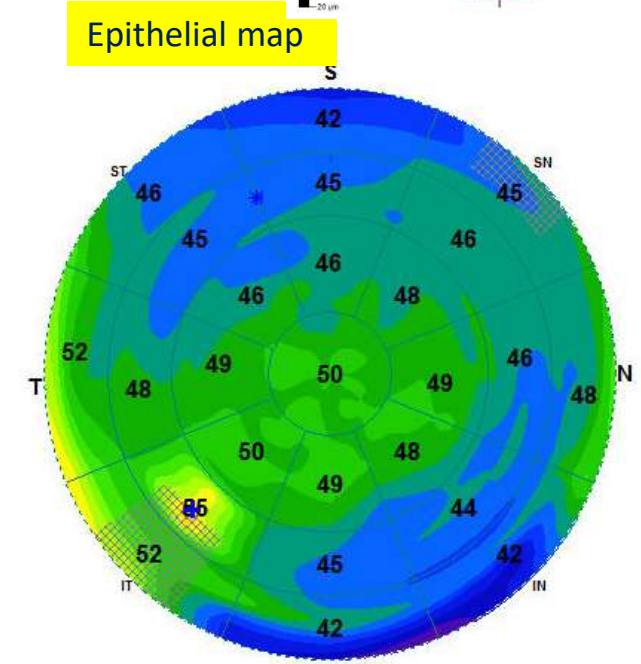
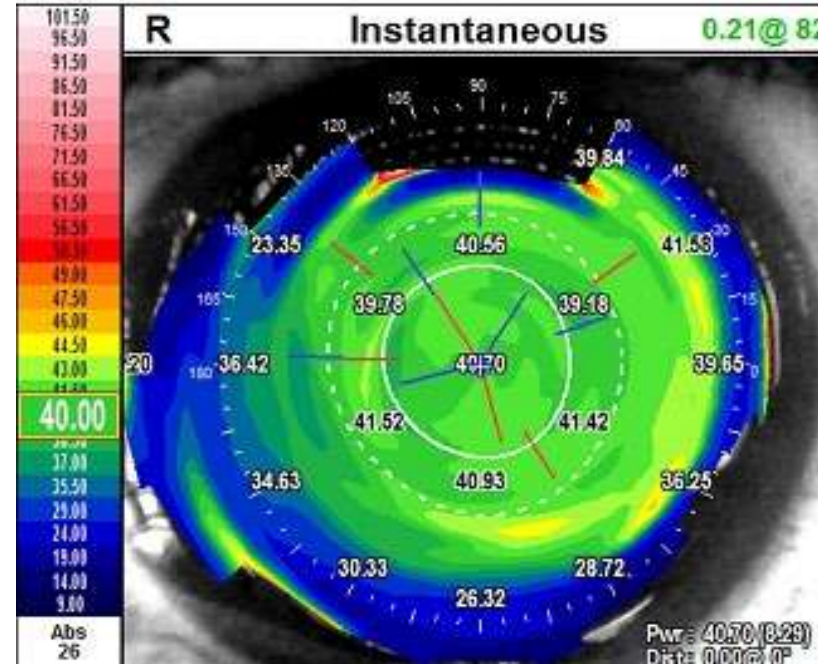
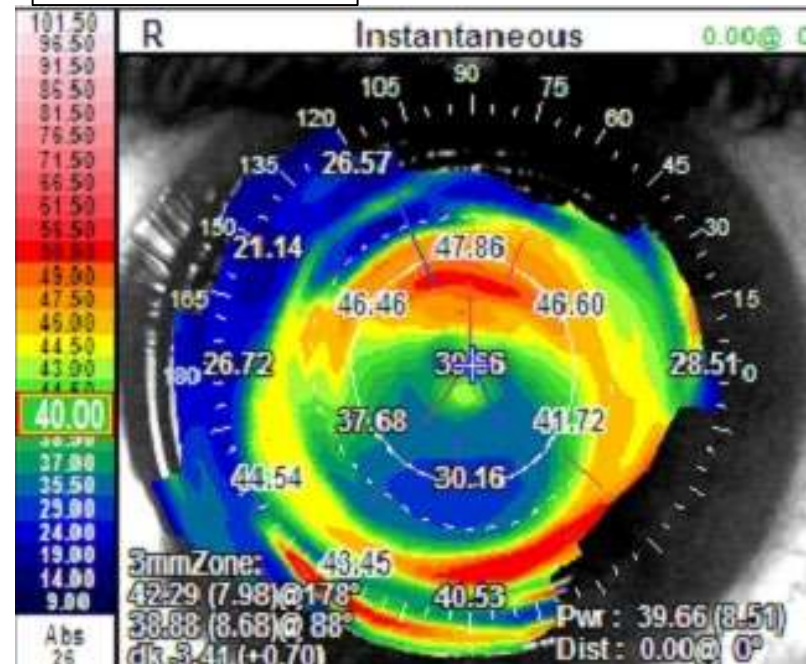
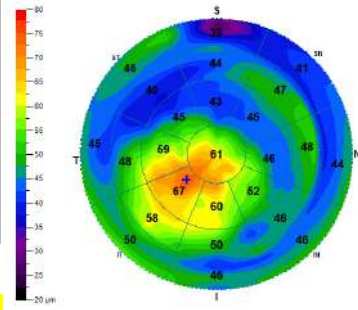
How can see a pts
with this cornea?





Pre op

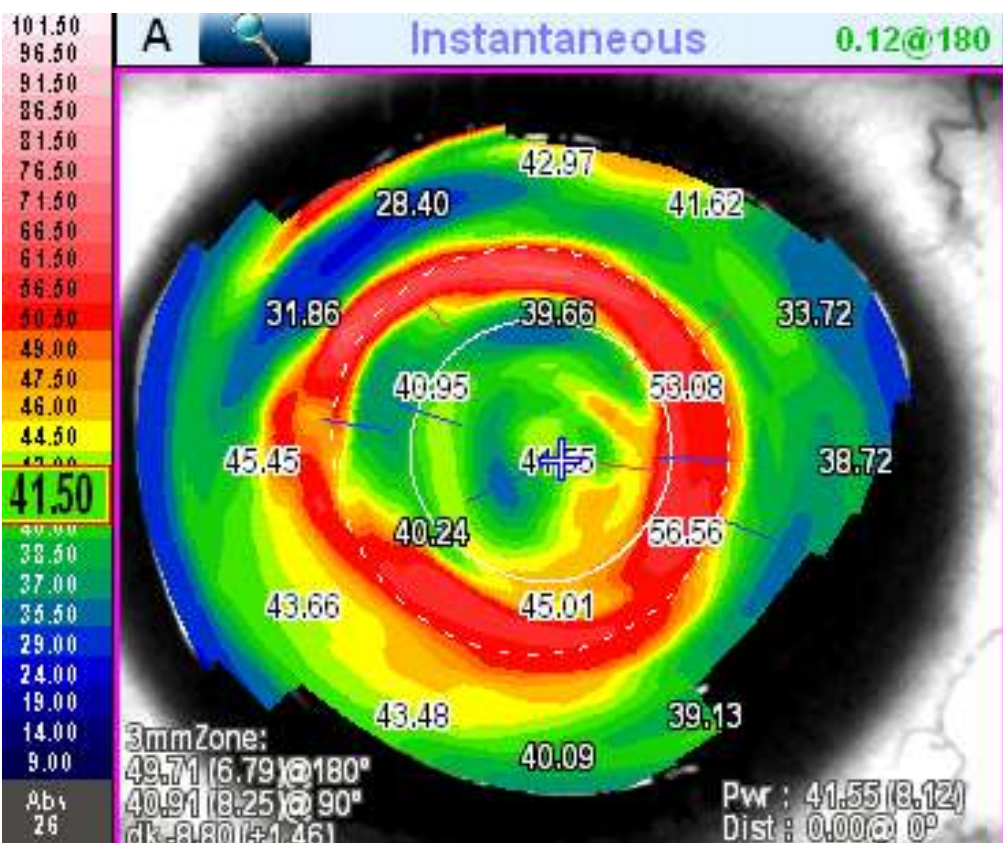
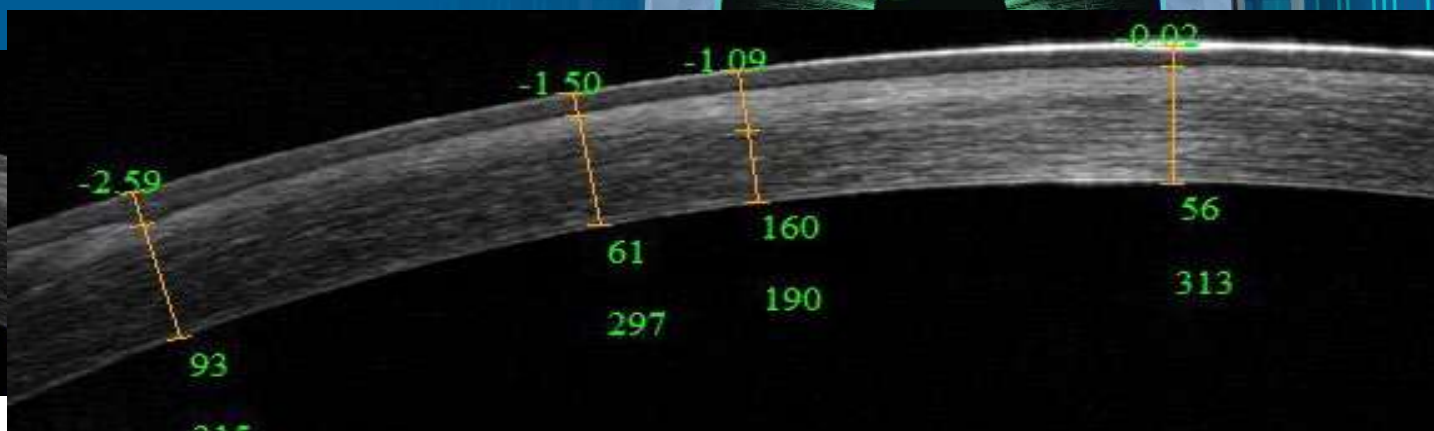
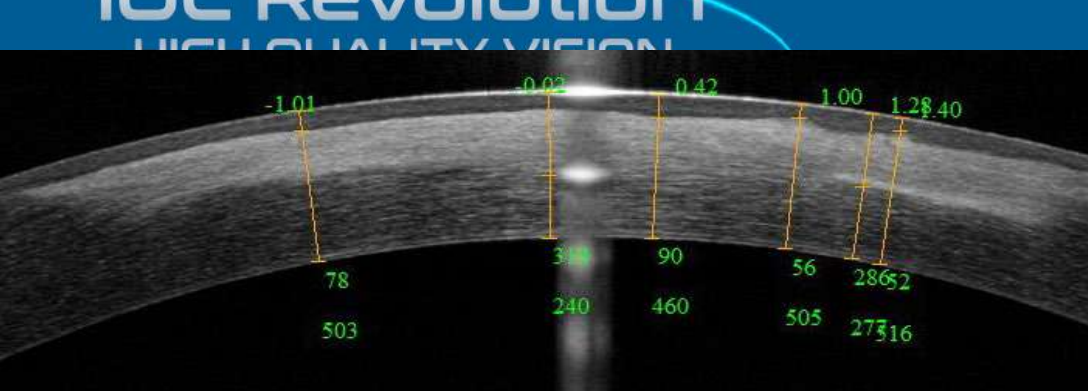
Pre op



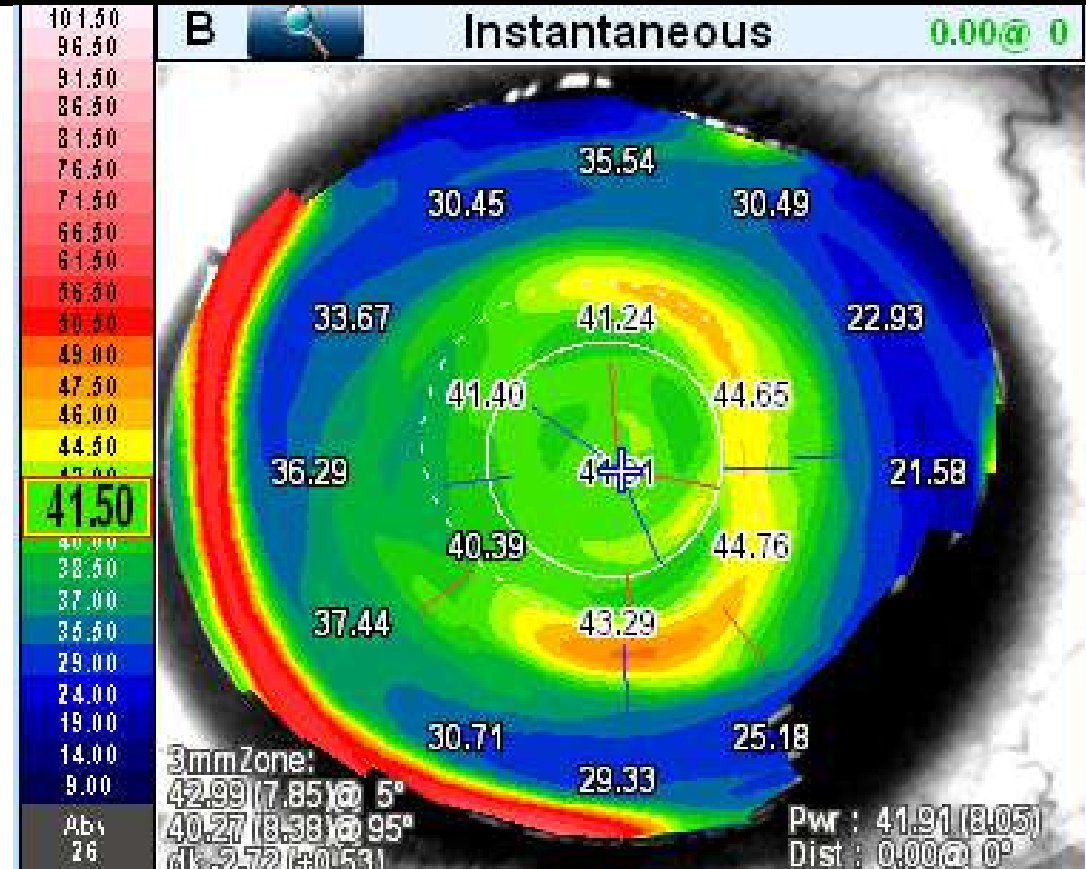
Epithelial map

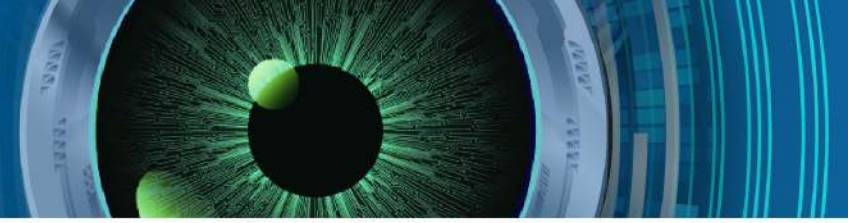
Post SCKT Phaco+IOL SN60WF +13.50 ODV 1,0 -0,25

SCTK: Pseudomonas ulcer: Pre op ODV 0,2 +1,50(-3,50)20



Post op:
Post op
ODV 1,0
+2,00(-
0,50)80
Planned
Faco





Thank you for your attention

