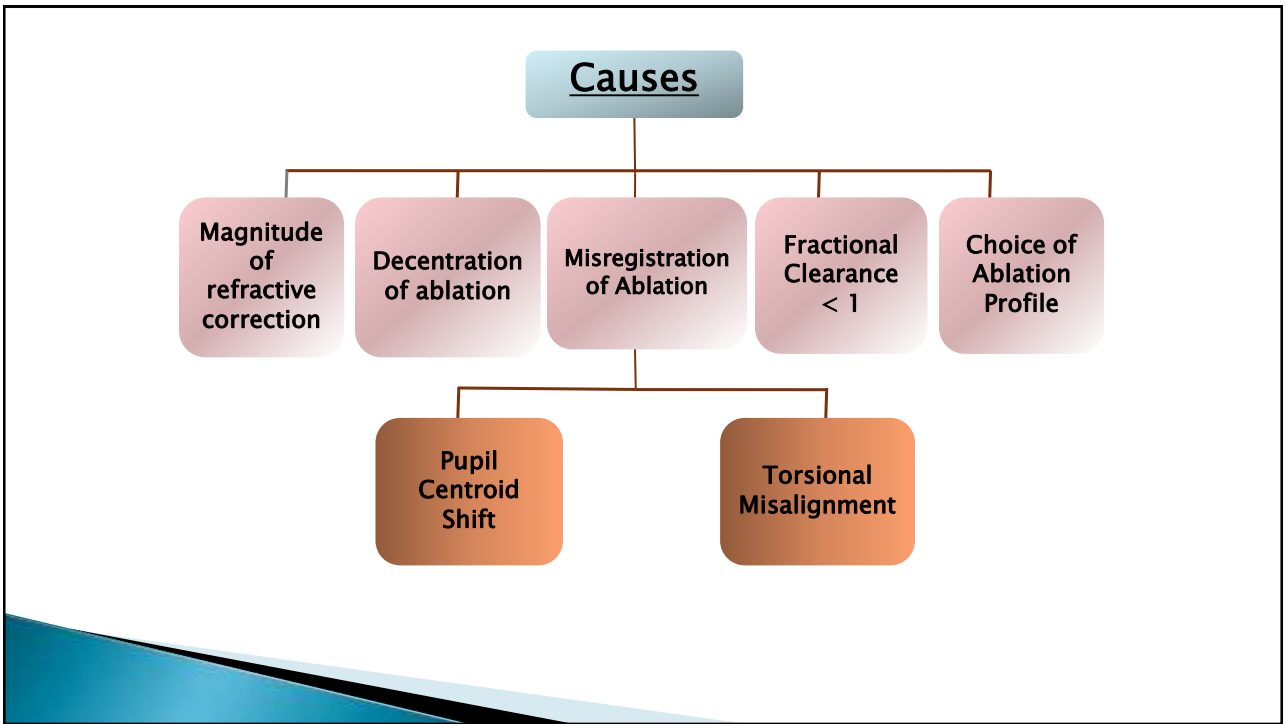


Post LASIK High Order Aberrations; Causes, How to Avoid and Treat

Dr. Mohamed Samy Samir

HOA Of Clinical Interest :



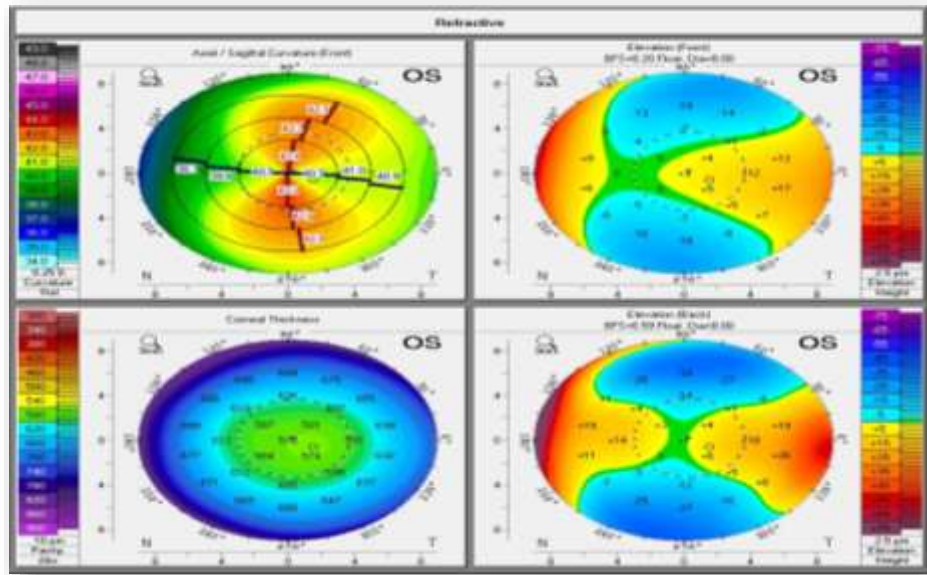


CASE PRESENTATION

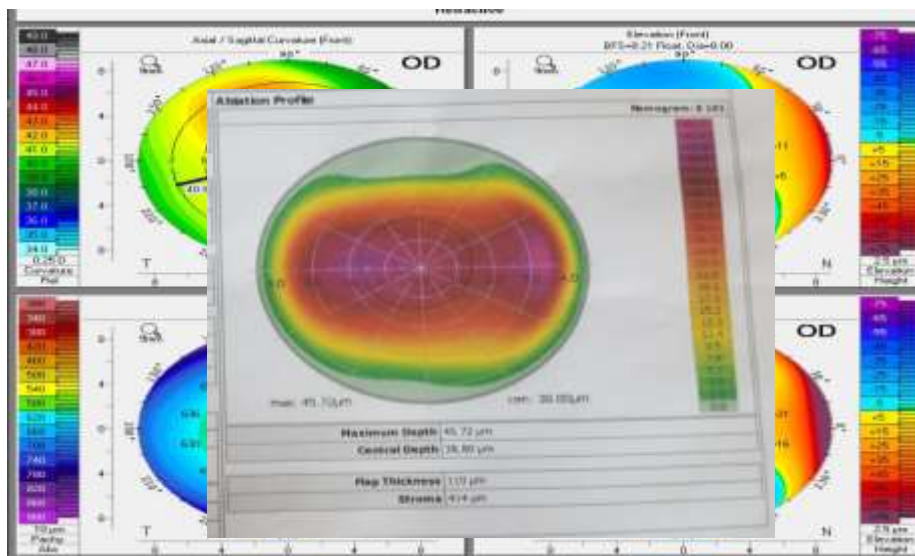
Male, 30 yrs,

OD: pl/-2.25 x 180 BCVA 1.2

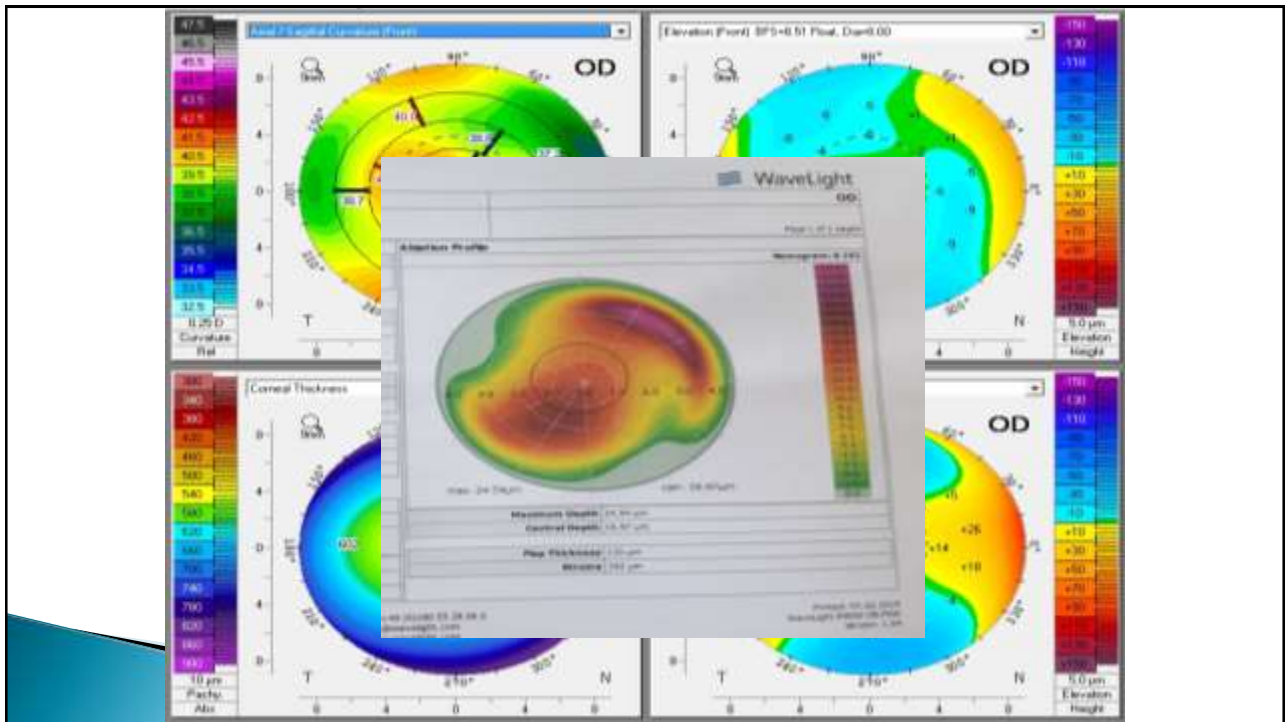
OS : pl/-2.00 x 180 BCVA 1.2



K1 40.7 @174.7
K2 42.9



K1 40.6 @ 8.4
K2 43.0



UAVA 0.8, not refractable!!
Severe Ghosting!!

VD : 12.00
CYL : (-)

(R)	S	C	A
	+0.25	-0.75	140
	+0.25	-0.75	140
	+0.25	-0.75	145
*	+0.25	-0.75	140
S.E.		-0.25	



OD	WF Rx (4.00mm D) +0.29 DS -1.05 DC x 132° @12.5mm SE: -0.24 Manifest: -0.08 DS -1.00 DC x 132° @12.5mm SE: -0.58	Exam Date 07-Nov-2015 12:54:46
<small>More information: Manifest file at work site path: Manifest Etch Dur (D) 5.61 Off -0.340</small> W.F. Diam (mm): 6.53 H.O.A. Rx (Etch): 0.85 High Order: 91.35% Manifest: +0.29 DS -1.00 DC x 132° @12.5mm (3.0 mm. lane)		Ablation Depth (microns)
K1 (D): 40.28 K2 (D): 40.92 K2 Axis(°): 44 (Design) Treatment Type: LASEK Correction Type: CustomVue % Homograde Adjustment: Hydrogel Adjustments - SPH (D): -0.30 CYL (D): +0.00 VTX (mm): 12.50 Total Correction - SPH (D): -0.01 CYL (D): -1.05 Axis(°): 132 VTX (mm): 12.50 Presbyopic Correction: No		
Scotopic Pupil (mm): 7.00 Optic Zone (mm): 6.00 Vision Zone (mm): 8.00 Flap Diameter (mm): 9.00 Corneal Thickness (μ): 520 Intended Flap Thickness (μ): 110 Max. Ablation Depth (μ): 13.4 Est. Residual Bed Depth (μ): 397 Additional Information:		Distribution of Residual Bed Depth No. of Poles: 242 Treatment Time (sec): 12.1
Laser Beam: 12.5 mm Pupil: 6.7 x 4.7 mm @40° (avg 6.7) Photopic Pupil: 5.3 x 3.4 mm @30° (avg 5.3)		
Wave Correction Center		Ver. 5.12 Copyright © 2012 AMO Manufacturing USA, LLC

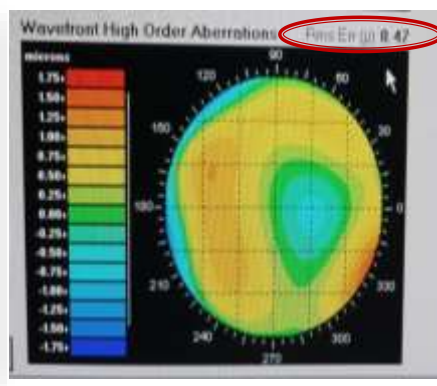
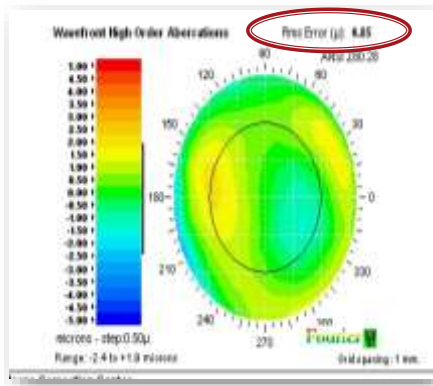
UAVA 1.5, no Ghosting, Happy and Satisfied





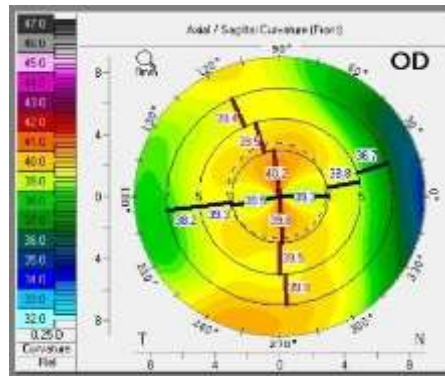
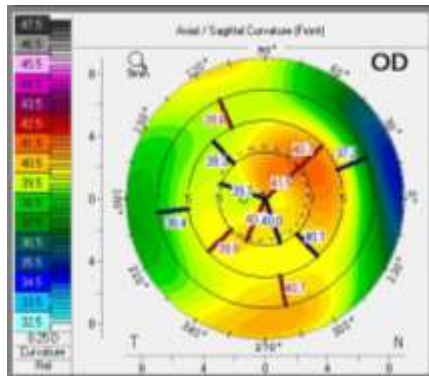
Pre-operative

Post-operative



Pre-operative

Post-operative



What might have caused this?

	Pachy:	x[mm]	y[mm]
Pupil Center:	+ 576 μm	-0.18	+0.19
Pachy Apex:	· 577 μm	0.00	0.00
Thinnest Locat.:	○ 574 μm	-0.74	0.00
K Max. (Front):	• 43.4 D	-0.07	+0.34
Cornea Volume:	64.7 mm^3	KPD:	+1.2 D
Chamber Volume:	228 mm^3	Angle:	45.5 °
A. C. Depth (Int.):	3.57 mm	Pupil Dia:	3.25 mm
Enter IOP	IOP(Sum): -1.1 mmHg	Lens Th.:	

This patient is !!



Take Home Message



- Post LASIK HOAs can be really devastating ..
- Never underestimate complain of an unhappy LASIK patient..
- LASIK is easy to perform but difficult to achieve good visual quality, so thoroughly evaluate before you scrub in ...



