Comparison of UCVA in Standard and Customized treatment, 1 year post-LASIK using the 213-nm solid state refractive laser

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 The author is NOT a paid consultant of CustomVis®. However, this presentation is partly sponsored by the said company.

Objective

 To compare the efficiency of refractive correction between Standard and Customized myopic LASIK using the CustomVis Pulzar Z1 solid state refractive laser

Setting / Venue

• An out-patient refractive surgery center in Manila, Philippines

Methods

- All eyes were treated using the Hansatome microkeratome and the CustomVis Pulzar Z1 solid state refractive laser.
- Eyes were grouped into those treated either standard versus topography guided or wavefront guided parameters using the ZCAD software.
- All eyes evaluated reached 1 year follow-up.

Results

• Sample size (n = 86 eyes)

Group 1 (Standard) : 41 eyes (48 %)
Group 2 (Customized) : 45 eyes (52 %)

• Topography guided 19 eyes

• Wavefront guided 26 eyes





UCVA, 1 year post LASIK



UCVA, 1 year post LASIK



Target vs. Achieved: Standard



Correlation coefficient: 0.98

Target vs. Achieved: Topo-guided



Correlation coefficient: 0.96

Target vs. Achieved: WF guided



Correlation coefficient: 0.97

Average deviation and Correlation coefficient

	Α	C
Standard		
Topography guided		
Wavefront guided		

Summary

• UCVA, 20/40 or better

– Standard	92.68%
 Topography guided 	94.74%
 Wavefront guided 	96.15%

• Average deviation and correlation coefficient

– Standard	0.54 D	0.98
– Topo guided	0.46 D	0.96
– WF guided	0.54 D	0.97

Conclusions

- Customized treatment showed higher proportions of UCVA of 20/40 or better compared to standard treatment.
- Post-operative results showed average deviation of 0.46 D to 0.54 D from target SE.
- Correlation coefficient showed high accuracy between target versus achieved correction (0.96 to 0.98).
- The 213 nm solid state refractive laser is highly efficient in correcting refractive errors using either standard or customized treatment.

Thank you



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