# Early results of hyperopic LASIK using a 213 nm wavelength solid-state laser

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# Disclaimer

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

# Objective

- To assess the safety and efficacy of laser in situ keratomileusis (LASIK) for hyperopia using the Pulzar Z1 (CustomVis), a 213-nm wavelength solid-state laser

# Setting / Venue

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

# Methods

- Prospective non-comparative case series composed of 17 eyes (9 patients)
- All patients underwent LASIK using the Hansatome microkeratome and the CustomVis Pulzar Z1 solid state refractive laser
- Manifest refraction, uncorrected visual acuity, best spectacle-corrected visual acuity (BSCVA), and safety were evaluated

# Results

- 17 eyes of 9 patients (2 males, 7 females)
- Age range 22-63 y/o
- Mean follow-up is 5.44 months ± 4.88 (range, 1-16 months)

# Results

- Pre-op UCVA:
  - 20/40 to 20/80 = 8 eyes (47 %)
  - 20/200 to 20/100 = 8 eyes (47 %)
  - < 20/200 = 1 eye (6 %)
- Mean Pre-op Spherical Equivalent is + 2.46 diopters ± 1.16 (range, + 0.75 to + 4.50 D)

# Results

- At 1 month follow-up, the average spherical equivalent is **0.07 diopter** ± 1.11 (range, -1.50 to +2.00 diopters)

- 13 eyes (76 %) had UCVA of 20/40 or better
- 3 eyes (18 %) had UCVA of 20/70
- 1 eye (6 %) had UCVA of 20/200 (due to amblyopia)

# Results

- One eye gained 1 line of Snellen BSCVA while the rest did not lose any line of Snellen BSCVA during the follow-up period
- No late post-operative complications were observed

# Conclusion

- Early results of hyperopic LASIK using a 213-nm wavelength solid-state refractive laser showed that  it is safe, effective, and reliable.

# Thank you

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