XXV CONGRESS OF THE ESCRS STOCKHOLM 8-12 SEPTEMBER 2007

10 September MONDAY

14:00-16:00

Laser vision correction for myopia, myopic astigmatism, hyperopia, hyperopic astigmatism and presbyopia with the solid state laser

Purpose: To evaluate the clinical efficiency, predictability and safety of a 213nm solid state laser for the correction of myopia, myopic astigmatism, hyperopia, hyperopic astigmatism and presbyopia in laser in situ keratomileusis (LASIK).

SETTING: Clinica Medellin Poblado, Colombia, Cure Spects, India; Eye Surgery Foundation, Western Australia.

METHODS: 436 consecutive eyes with myopia and myopic astigmatism between -0.5 and -14.5 diopters (D) and up to -5.50 D astigmatism, 195 eyes with hyperopia and hyperopic astigmatism between +0.5 D and +6.00 D and up to -6.50 D astigmatism and 16 presbyopic eyes underwent LASIK treatment using the solid state laser. All cases were followed for 3 months. Parameters evaluated were residual refractive error, uncorrected visual acuity (UCVA), and best spectacle - corrected visual acuity (BSCVA).

RESULTS: Out of 436 myopic eyes 366 were within +/- 0.5 D (84%) and 427 eyes were within +/- 1 D (98%) of intended refractive correction. Uncorrected visual acuity = 6/6 was achieved in 322 eyes (74%), > or = 6/7.5 was achieved in 383 eyes (88%). The best spectacle corrected visual acuity (BSCVA) was improved by 1 line in 22 eyes. Out of 195 hyperopic eyes 168 eyes had 6/6 or better UCVA. All 16 eyes with presbyopic correction had a 20/25 (J2) or better for near vision. No eye lost over one line BSCVA.

CONCLUSIONS: The data supports the safety, predictability and clinical efficiency of the solid state (213nm) laser for the correction of all grades of myopia with or without astigmatism, hyperopia with or without astigmatism and presbyopia. Financial Disclosure: 3

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