XXVII Congress of the ESCRS
12-16 September 2009, Barcelona Spain

Study of contrast sensitivity and ocular aberrations, post laser refractive surgery with CustomVis Pulzar Z1

Session: Laser refractive surgery - 6 minutes

Session Date : 15 September 2009 | Session Time: 16:30 - 18:00

Paper Time: 17:06

First Author: P. Van Saarloos *AUSTRALIA*

Co. Authors : S. T. Pujara

Abstract Details:

Purpose:

To present the contrast sensitivity and ocular aberrations data of LASIK and PRK performed using Pulzar Z1, the Solid State Refractive Laser.

Setting:

1.Srivision Eye Institute, India. 2.Research and Development, CustomVis, Australia.

Methods:

Retrospective chart review of all cases of corneal refractive surgery operated between June 2007 and May 2008 with minimum 3 months follow up were done. Pre operative and post operative contrast sensitivity and ocular aberration data were studied. Contrast sensitivity data was measured using CSV - 1000 and aberrometry was performed using iTrace. The visual and refractive results were also analyzed.

Results:

Fifty eight eyes of 30 patients were involved in the study. At the 3 months follow up visit, in the LASIK group, 6/6 or better visual acuity was achieved in 33 eyes (89.19%). In the PRK group, 6/6 or better vision was achieved in 19 eyes (90.9%). In the overall group, which includes all LASIK and PRK patients, there was improvement in mean contrast sensitivity at all spatial frequencies at 3 months follow-up visit, though this was not statistically significant. The wavefront RMS value decreased 3 months after surgery, though this was also not statistically significant.

Conclusions:

Standard treatments with Pulzar Z1 are maintaining pre operative contrast sensitivity and ocular aberrations. This makes Pulzar Z1 an effective refractive laser.

Financial Disclosure:

3