

ISRS/AAO 2004 Conference

Clinical Results for the Treatment of Difficult and Standard Cases using a Refractive Solid State Laser System.

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Purpose: To investigate the efficacy of the CustomVis™ Solid State 213nm Refractive Laser on patients with highly irregular corneas and patients with standard myopia with or without astigmatism

Methods: Custom surgery was performed on 8 cases using surface ablation. Five cases had severe irregular astigmatism, 4 following either penetrating keratoplasty (PK) or photorefractive keratectomy (PRK), and one following astigmatic keratotomy (AK). The remaining 3 had standard refractive disorders, 2 had previous surgeries including limbal relaxing incisions.

Results:

In the five irregular astigmatism cases (1 month post-op); UCVA improved in 4 cases and 1 unchanged, BSCVA improved in 3 cases and remained stable in 2.

One case (previous PK, AK and PRK) improved from < 20/400 UCVA to 20/32, and BSCVA from 20/80 to 20/32.

Another case (previous PK, AK, PRK x 2, repeat PTK) improved from 20/125 UCVA to 20/25, and BSCVA remained stable at 20/20.

For the 3 standard cases, UCVA improved to 20/12.5 (2 cases) and 20/15 (1 case), and BSCVA remained stable at 20/12.5 or 20/15 in all cases.

Three and six month data for both cohorts will be presented at the conference.

Conclusion:

Customized surgery with a solid state laser may offer therapeutic and clinical benefits, especially for highly aberrated eyes.