

COMPARISON OF VISUAL OUTCOMES OF EXTENDED RANGE OF VISION INTRAOCULAR LENS (IOL) WITH 2.5 AND 3.0 DIOPTERS ADD REFRACTIVE DIFFRACTIVE MULTIFOCAL INTRAOCULAR LENS IMPLANTS (MFIOL)

Purpose: To evaluate the visual outcomes of Technis Symphony(ZXR00) Extended Range of Vision IOL, +2.5D add AcrySof IQ ReSTOR(SV25T0) and +3.0D add AcrySof IQ ReSTOR(SN6AD1) MFIOL.

Method: 30 eyes of 30 patients were prospectively enrolled and stratified into three groups: Technis Symphony (Group-A, n=10), +2.5D add MFIOL (Group-B, n=10) and +3.0D add MFIOL (Group-C, n=10). Target refraction was emmetropia in all eyes. Subjective refraction, Defocus Curve (DC) and Contrast-Sensitivity (CS) were evaluated at 1st and 3rd month.

Result: At 3 months, the mean logMAR Uncorrected Distance Visual Acuity (UDVA) for group-A, B & C was 0.17; 0.13; 0.10 and mean spherical equivalent was 0.51; 0.35; 0.15 respectively.

Distance corrected intermediate (50 cm) visual acuity of N6 or better was achieved in 70% patients in group-A and 50% in both group-B&C. Distance corrected near (30 cm) visual acuity of N6 or better was achieved in 40% patients in group-A&B and in 100% patients of group-C.

At a defocus of -2.0 D, Visual acuity of 0.2 logMAR units or better was seen in 50 %, 40% and 80% patients in the three groups respectively whereas at a defocus of -2.5 D, it was 60% in group-C and 20% in both group-A&B. Group B had best photopic CS and group A best mesopic CS.

Conclusion: The new Technis Symphony IOL provides the best visual acuity at intermediate distances while best near visual acuity is provided by the + 3.0 add MFIOL(SN6AD1). Technis Symphony provides the best contrast sensitivity at night among the three lenses.