EVALUATION OF EXTENDED DEPTH OF FOCUS POSTERIOR CHAMBER INTRAOCULAR LENS IMPLANT FOR MICROMONOVISION TO CORRECT PRESBYOPIA AFTER PHACOSURGERY

Purpose: To study visual outcomes after bilateral implantation of new Technis Symfony Extended Range of Vision Intraocular Lens (IOL), Model ZXR00 (AMO) with micro-monovision approach

Methods: In a prospective, single centre clinical study, visual outcomes were evaluated in patients with bilateral implantation of Technis Symfony IOL in 22 eyes of 11 patients. Target refraction was emmetropia in the distance dominant eye and -0.75D in the non dominant eye. Post operative examination was performed for each eye on day 1 and day 3, binocular exams followed after 1 and 3 months after surgery. Subjective refraction (SR), Defocus Curve (DC) and Contrast Sensitivity (CS) were evaluated.

Results: Mean binocular UDVA of 0.06 logMAR was achieved at the end of 3 months. Binocular distance corrected intermediate (50 cm) and near (30 cm) visual acuity of N6 or better was achieved in all the 11 (100%) patients. Binocular UDVA of all patients was 6/9 or better. Spherical equivalent of .75 D or less in emmetropia targeted eyes and 1.0 D or less in non dominant eyes was achieved in 9 out of 11 (81.82 %) patients. Defocus of 0.2 logMAR units or better was maintained upto -2.0 D in 10 out of 11 (90.91%) patients. CS was similar to young phakic patients at certain spatial frequencies.

Conclusions: Bilateral implantation of Technis Symfony extended depth of focus IOL with a micromonovision approach provides excellent visual outcomes for near, intermediate and distance with high level of spectacle independence for the patients.