Clinical Outcomes With a New Continuous Range of Vision Presbyopia-Correcting Intraocular Lens

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Objectives

To evaluate the clinical outcomes including patient-reported outcome measures in a sample of eyes undergoing bilateral cataract surgery with implantation of a new model of presbyopia-correcting intraocular lens (IOL).

Study Design

This non-randomized prospective case series enrolled 206 eyes of 103 patients undergoing phacoemulsification cataract surgery with bilateral implantation of the TECNIS Synergy® IOL (Johnson & Johnson Vision). High and low contrast visual acuity, refractive, defocus curve, and patient-reported visual performance (Catquest-9SF questionnaire) outcomes were evaluated during a 3-month follow-up.

Patient Selection

Key factors for patient selection were the following: motivation, patients requesting presbyopia correction, stable and good tear film, scotopic pupil size of less than 6 mm, no pathology associated, and acceptance of the limitations of the technology in the worst-case scenario (photonic phenomena).

Mean defocus curve obtained at 3 months after surgery in right and left eyes patients enrolled in the study. D = diopters.
CONCLUSIONS:

- The **TECNIS Synergy**® IOL provides an effective visual rehabilitation, with a continuous range of focus across distances that are commonly used in our daily life and minimal incidence of photic phenomena.

- Continuous range of focus may be the main reason explaining the great subjective improvement reported by the patient as evaluated with the Catquest-9SF questionnaire.

- Low contrast monocular UNVA was also found to be in levels of photopic values reported for other multifocal IOLs.

- Patient counseling and patient selection is crucial.