Soczewka wewnątrzgałkowa o wydłużonej głębi ostrości AcrySof® IQ Vivity® – doświadczenia własne

Extended Depth-of- Focus AcrySof® IQ Vivity® Intraocular Lens Implant – Our Experience

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Abstract:

Purpose: To present preliminary results of distance, intermediate and near visual acuity, objective and manifest refraction in two groups of patients: targeted on emmetropia and targeted on small myopia after cataract surgery with an implantation of Extended Depth-of-Focus AcrySof® IQ Vivity® DFT015 (Alcon Inc., Fort Worth, TX, USA) intraocular lens in three months follow-up.

Material and Methods: A total of 18 eyes of 15 patients underwent 2.4 mm coaxial cataract surgery with an implantation of AcrySof® IQ Vivity® DFT015 intraocular lens (Alcon Inc., Fort Worth, TX, USA). Before surgery best-corrected distance visual acuity, objective and manifest refraction and corneal keratometry were evaluated. Three months after the surgery uncorrected and best-corrected distance visual acuity, uncorrected intermediate visual acuity uncorrected and best-corrected near visual acuity, objective and manifest refraction and corneal keratometry were analyzed in both groups.

Results: Three months after the surgery in the emmetropic group refractive outcomes were: mean uncorrected distance visual acuity 0.04 $\pm$ 0.05, mean best-corrected visual acuity 0.01 $\pm$ 0.04, mean uncorrected intermediate visual acuity 0,01 $\pm$ 0,03, mean uncorrected near visual acuity 0.15 $\pm$ 0.09 and mean best-corrected near visual acuity 0.00 $\pm$ 0. In the mini-monovision group: mean uncorrected distance visual acuity was 0.13 $\pm$ 0.11, mean best-corrected visual acuity 0.01 $\pm$ 0.02, mean uncorrected intermediate visual acuity 0.00 $\pm$ 0, mean uncorrected near visual acuity 0.09 $\pm$ 0.13 and mean best-corrected near visual acuity 0.00 $\pm$ 0. There was no significant change in corneal keratometry in flat and steep meridian ($p = 0.59$ and $p = 0.4$) in whole group. There were no intra- and post-operative complications in any of the patients.

Conclusions: AcrySof® IQ Vivity® DFT015 (Alcon Inc., Fort Worth, TX, USA) provided good distance and intermediate visual acuity with the functional near. It is well tolerated with poor impact of post-operative optical phenomena. Significant gains in binocular near vision can be achieved by leaving the non-dominant eye of patients with 0.50 D to 1.00 D of myopia.

Key words: cataract, extended depth-of-focus, non-diffractive, presbyopia, mini-monovision.
Słowa kluczowe: zaćma, soczewka o wydłużonej głębi ostrości, niedyfrakcyjna, prezbiopia, minimonowizja.