Presentation of results after implantation of multifocal lenses for refractive and cataract surgery

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Introduction: Intraocular lens (IOL) implantation serves both refractive and cataract surgery. Multifocal intraocular lenses (MFIOLs) contain multiple refractive zones that create more than one focal point (focus) and therefore enable near and far vision. The main side effects experienced by patients are visual phenomena in the form of halos, glares and starbursts. These occur due to the scattering of light that occurs naturally during the transition between the near and far areas of the lens.

Study purpose: Adequate selection of patients who will undergo MFIOL implantation. To compare the visual acuity for far, medium and near distance in patients, after implantation of multifocal lenses. To determine the level of patient expectation satisfaction with MFIOLs.

Material and methods: This paper is a retrospective cohort study. We collected the data of patients who underwent surgical intervention for refractory and cataract during the period November 2020 - July 2024 at Q.L.S. "Kubati". Before the intervention, the dioptry was determined with an autokeratorefractometer, the corneal topography was performed with Pentacam, the tear quantity was determined, and the anterior and posterior segments were examined.

Results: MFIOL implantation was performed in a total of 35 patients (68 eyes). The ratio between men and women was 15:20. Most (25) patients were operated for refractory purposes, while in 10 patients MFIOLs were implanted due to cataract. The average visual acuity expressed in decimal form was 0.8-0.9 sc. Precizon Presbyopic NVA lenses were implanted in the largest number of cases (25).

Conclusion: In almost all cases, visual acuity for far, medium distance and near distance, after surgical intervention, has been very good. Fully informing patients and motivating them to overcome the adaptive period, neurosensory adaptation, ensures a high level of satisfaction.

Keywords: Multifocal lenses, Refractive surgery, Cataract surgery, Pentacam.