

Comparison of Contrast Sensitivity of 1-Piece Hydrophobic Acrylic Aspheric Monofocal and Multifocal IOLs

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Purpose:

- The evaluation of the optic performance of one-piece hydrophobic acrylic spheric monofocal and multifocal intraocular lenses by comparing the contrast sensitivity.

Methods:

- We included 60 eyes of 45 patients (Zaraccon Ultraflex(UF) Group:30 eyes, Zaraccon Revision(RV) Multifocal Group: 30 eyes) who have had phacoemulsification surgery and implantation of intraocular lens in the posterior chamber between 2012-2013 at Cumhuriyet University Ophthalmology Department. The patients were examined routinely 1. day, 1. week and 1. month postoperatively.

Methods:

- At the third month, best corrected visual acuity values were recorded, after than the contrast sensitivity tests at 1,5 , 3 , 6, 12 and 18 cpd were examined to all patients, as photopic with glare-without glare and mesopic with glare–without glare with an OPTEC 6500 contrast sensitivity test device.

Results:

- UF group's values were significantly higher in all spatial frequencies at test mesopic and photopic with glare and without glare 1.5 , 3, 6 , 12 cpd and mesopic with glare 18 cpd($p < 0.05$).
- All patient had 20/25 or more best corrected visual acuity after 3 month from operation.
- Between two groups there weren't any statistical significance on patient's being eyeglasses free. ($P = 0.114$, $P > 0.05$)

Conclusions:

- These results show that both lenses provide good level contrast sensitivity despite UF lens has a better optic performance.