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Comparison of the two generations of Medennium posterior chamber phakic intraocular lenses for correction of myopia

Session Title: Phakic IOLs II Date/Time: Tuesday 08/09/2015 | 14:00-16:00
Paper Time: 14:24 Venue: Room 17

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Purpose:

To compare the visual outcomes and complications of the new generation (MPL) and the previous generation (PRL) of Medennium posterior chamber phakic intraocular lens implantation for correction of myopia.

Setting:

Blue Eye" Centro di Chirurgia Oculare, Milano, Italy, "International Center for Ophthalmology", Moscow, Russia

Methods:

We reviewed 109 myopic eyes undergoing PIOL implantation using PRL (54 eyes) and MPL (55 eyes) in which refractive errors ranged from -3.25 to -27.00 diopters (D). The mean follow-up period was 13.18 ± 9.64 months. Autorefractometry, uncorrected distance visual acuity (UCVA), best corrected visual acuity (BCVA), optical biometry, intraocular pressure (IOP), OCT Visante, corneal endothelial cell (CEC) loss were compared.

Results:

The mean SE changed from $-11.75 \pm 5.81D$ to $-0.42 \pm 0.82D$ in the PRL group and from $-11.59 \pm 4.97D$ to $-0.46 \pm 0.92D$ in the MPL group. The UCVA improved from 1.54 ± 0.29 (logMAR) to 0.19 ± 0.25 in the PRL and from 1.63 ± 0.25 to 0.18 ± 0.29 in the MPL group. BCVA changed from 0.21 ± 0.25 to 0.09 ± 0.16 in the PRL and from 0.23 ± 0.29 to 0.08 ± 0.17 in the MPL. The mean distance between Crystalline lens and PIOL in PRL group - $362,44 \pm 91 \mu m$, in MPL group - $373,62 \pm 74 \mu m$. No statistically significant CEC induced by the PRL and MPL and no statistically significant difference ($P < .05$). No induced cataract, glaucoma, or inflammation was observed.

Conclusions:

The visual outcomes of the MPL and PRL implantation show comparable efficacy, predictability and stability of results.

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