

3 de Dezembro

08h30 | 10h00 – Sala 2

Catarata | Cataract

Moderadores | Chairs: João Feijão (CHULC), Conceição Lobo (CHUC), João Paulo Macedo (CHUSJ)

CO 114

COMPARISON OF EFFICACY AND SAFETY FOLLOWING COMBINED ANTERIOR CHAMBER FOLDABLE OR RIGID PHAKIC INTRAOCULAR LENS EXPLANTATION AND CATARACT PHACOEMULSIFICATION

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Introduction/Purpose: To compare visual, refractive, and safety outcomes following anterior chamber foldable or rigid polymethyl methacrylate (PMMA) phakic intraocular lens (pIOL) explantation through scleral or corneal incisions combined with standard cataract phacoemulsification and pseudophakic monofocal intraocular lens (IOL) implantation.

Methods: This retrospective cohort study included 65 eyes of 51 subjects submitted to anterior chamber pIOL explantation combined with cataract phacoemulsification and pseudophakic IOL implantation due to cataract formation or endothelial failure. Three groups were defined: group 1 comprised 16 eyes that underwent foldable pIOL explantation through a 3.2-mm corneal incision; group 2 comprised 37 eyes that underwent rigid PMMA pIOL explantation through a 6-mm scleral incision; group 3 comprised 12 eyes that underwent rigid PMMA pIOL explantation through a 6-mm corneal incision. Safety, efficacy and predictability were evaluated preoperatively and at 12 months postoperatively. Corneal astigmatic vector analysis was performed by Alpins method.

Results: One-year postoperatively, all groups had similar corrected visual acuity ($p=0.10$); the safety indexes were 2.03 ± 0.88 (group 1), 2.33 ± 2.04 (group 2), and 3.29 ± 3.00 (group 3) ($p=0.84$). Group 1 showed the highest efficacy index - 0.69 ± 0.20 ($p=0.003$) - while group 3 showed the lowest - 0.35 ± 0.16 ($p=0.008$). Spherical equivalent was within $\pm1.0D$ of emmetropia in 81.4%, 43.2%, and 33.3% eyes, respectively. Group 1 showed lower manifest cylinder compared with group 2 ($p=0.002$) and 3 ($p=0.001$). Surgically induced corneal astigmatism was 0.65 ± 0.37 in group 1, 0.93 ± 0.50 in group 2, and 1.27 ± 0.66 in group 3 ($p<0.001$). The rate of endothelial change showed no differences between the 3 groups ($p=0.08$). No vision-threatening complications occurred.

Conclusions: Anterior chamber pIOL explantation combined with standard cataract phacoemulsification showed a significant improvement in both corrected and uncorrected visual acuity with a good safety profile, regardless of the type of pIOL and incision performed. Foldable pIOLs explanted through 3.2-mm corneal incisions reached higher efficacy index and refractive predictability. Rigid PMMA pIOLs particularly if explanted through large 6-mm corneal incisions revealed higher surgically induced corneal astigmatism.