

Glued trans-scleral intraocular lens exchange for anterior chamber lenses in complicated eyes: analysis of indications and results.

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Abstract:

PURPOSE: To determine the clinical outcomes after glued trans-scleral posterior chamber intraocular lens (IOL) exchange for anterior chamber (AC) IOL.

DESIGN: Retrospective case series.

METHODS: Eyes with AC IOL explantation with glued IOL implantation in a single setting at the Dr Agarwal Eye Hospital and Eye Research Centre, Chennai, India, from 2008 through 2012 were included. Data were collected from the patient records.

MAIN OUTCOME MEASURES: Corrected distance visual acuity (CDVA) in logarithm of the minimal angle of resolution units, intraocular pressure, AC reaction, AC depth, central corneal thickness, central macular thickness, endothelial cell density, and endothelial cell loss (percentage) were determined before and after IOL exchange.

RESULTS: Thirty-eight eyes with mean follow-up of 24.1 +/- 15.4 months (range, 8 to 60 months) were analyzed. The indications were corneal decompensation (39.4%), malpositioned AC IOL (28.9%), uveitis (15.7%), glaucoma (13.1%), and broken haptic (2.6%). There was significant improvement in the postoperative CDVA ($P = .000$) and central corneal thickness ($P = .000$) after AC IOL removal. CDVA better than 20/60 was obtained in 65.7% eyes. Thirty-four (86.8%) eyes showed

an increase in the CDVA after IOL exchange. The mean endothelial cell loss was $3.4 \pm 2.4\%$ (range, 0.13% to 10.5%). There was significant correlation between the CDVA and the central corneal thickness ($P = .000$). There was significant change in the AC depth ($P = .000$), the intraocular pressure ($P = .005$), and the AC inflammation ($P = .000$) after IOL exchange. The preoperative macular edema in 3 eyes resolved after surgery (mean central macular thickness, $205.6 \pm 7.2 \mu\text{m}$).

CONCLUSIONS: Glued trans-scleral fixated posterior chamber IOL exchange for AC IOL can be an excellent alternative in eyes with ocular complications related to AC IOL.

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