

# **Modified technique for combining DMEK with glued intrascleral haptic fixation of a posterior chamber IOL as a single-stage procedure.**

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## **Abstract:**

**PURPOSE:** To describe changes in the surgical technique required for combining Descemet membrane endothelial keratoplasty with glued intrascleral haptic fixation of a posterior chamber intraocular lens ([IOL] glued IOL) as a single-stage surgery in patients diagnosed as having aphakic or pseudophakic bullous keratopathy.

**METHODS:** Six patients with corneal decompensation and inadequate capsular support requiring implantation/exchange of an IOL underwent a single staged glued IOL with Descemet membrane endothelial keratoplasty at a tertiary care center. Stability of the anterior chamber and structure of iris diaphragm-IOL complex were assessed intraoperatively by injecting air and, when required, iridoplasty was performed. Patients were observed postoperatively.

**RESULTS:** One patient had partial graft detachment requiring re-bubbling and 1 patient had a small peripheral detachment with spontaneous resolution. The graft remained attached in all patients. An iridoplasty was required for 2 patients. Visual acuity improved in all patients. The mean preoperative and postoperative corrected distance visual acuity were 0.11 +/- 0.07 and 0.7 +/- 0.17, respectively. There was significant change in the corrected distance visual acuity after surgery ( $P = .028$ ). The mean postoperative endothelial cell density at 6 months was 1,710.3 +/- 205.8 cells/mm<sup>2</sup>).

CONCLUSIONS: Descemet membrane endothelial keratoplasty with glued IOL provides stable IOL with decreased pseudophacodonesis for better graft fixation. Iris diaphragm covering IOL optic all around is essential to restore bicamerality, allows sufficiently sized, non-migrating air bubbles, and decreases graft detachment and dislocation both intraoperatively and postoperatively. A need for iridoplasty must be confirmed intra-operatively.

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