Intrascleral fibrin glue intraocular lens fixation combined with Descemet-stripping automated endothelial keratoplasty or penetrating keratoplasty.

Authors: Sinha R., Shekhar H., Sharma N., Tandon R., Titiyal J.S., Vajpayee R.B.

Publication Date: 2012

Abstract:

Purpose: To evaluate the outcomes of intrascleral haptic fixation of an intraocular lens (IOL) with fibrin glue combined with penetrating keratoplasty (PKP) or Descemet-stripping automated endothelial keratoplasty (DSAEK) for aphakic or pseudophakic bullous keratopathy (BKP). Setting: Rajendra Prasad Centre for Ophthalmic Sciences, All India Institute of Medical Sciences, New Delhi, India. Design: Case series. Methods: Eyes with BKP had combined PKP or DSAEK with fibrin glue-assisted intrascleral posterior chamber (PC) IOL fixation; PKP was performed in eyes with a corneal scar and DSAEK in eyes without a scar. The parameters evaluated were corrected distance visual acuity (CDVA), anterior segment biomicroscopy, intraocular pressure, central corneal thickness (CCT), and IOL status. Intraoperative events and postoperative complications were recorded. Results: The study evaluated 11 patients (11 eyes). Intrascleral fixation of a PC IOL with PKP or DSAEK was successfully performed in all eyes; PKP was performed in 6 eyes (54.54%) and DSAEK in 5 eyes. The mean CDVA improved from 1.95 logMAR +/- 0.29 (SD) to 0.40 +/- 0.16 logMAR (P<.001). The mean CCT was 0.741 +/- 0.71 mm preoperatively and 0.579 +/- 0.20 mm postoperatively (P<.001). There were no cases of intraoperative or postoperative IOL decentration or other complications. Conclusions: Fibrin glue-assisted intrascleral fixation of a PC IOL combined with DSAEK or PKP was a safe, effective method to manage BKP with aphakia or malpositioned IOLs. The IOL fixation was strong enough to sustain the manipulation required for corneal procedures.