

# **Femtosecond-assisted descemet stripping automated endothelial keratoplasty with fibrin glue-assisted sutureless posterior chamber lens implantation.**

Authors: Prakash G, Agarwal A, Jacob S, Kumar DA, Chaudhary P, Agarwal A

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## **Abstract:**

**PURPOSE:** We report a surgical technique for managing postsurgical aphakia with endothelial decompensation. The technique comprises femtosecond laser-assisted Descemet stripping automated endothelial keratoplasty (DSAEK) with fibrin glue-assisted sutureless posterior chamber intraocular lens (IOL) implantation-"glued IOL".

**METHODS:** Three eyes (of 3 patients) underwent the technique. The donor lenticules were created on a 60-kHz femtosecond laser platform (Intralase; Abott Medical Optics, Santa Ana, CA). Two partial-thickness scleral flaps and sclerotomies were made in host. After this, the Descemet was scored and stripped. A 3-piece 6.5-mm posterior chamber IOL was inserted, and its haptics were externalized through the sclerotomies. The haptics were then tucked into intrascleral pockets. The donor lenticule was inserted into the anterior chamber and unfolded. Air tamponade and pull suture manipulations were used to stabilize and center it. The partial-thickness scleral flaps were apposed with fibrin glue.

**RESULTS:** The uncorrected and best-corrected visual acuities improved in all cases. There were no donor dislocations. The average donor endothelial cell loss was 27.7% at 6 months.

**CONCLUSIONS:** Our series suggests that there is a benefit of glued IOL with DSAEK in such

scenarios. It also has potential benefits as a combined procedure with DSAEK in comparison to anterior chamber IOL because it does not reduce the anterior chamber volume, does not require intact iris tissue, and unlike suture-fixated IOL, does not have knot slippage or pseudophakodonesis.