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VIDEO REPORT

Br J Ophthalmol 2007;**91**:714. doi: 10.1136/bjo.2007.121343

Descemet-Stripping Automated Endothelial Keratoplasty Technique in Patients with Anterior Chamber Intraocular Lenses

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ABSTRACT

Background: Descemet-Stripping Automated Endothelial Keratoplasty (DSAEK) is a relatively new, but proven procedure in treating endothelial dysfunction. Patients with aphakia or anterior chamber intraocular lenses (ACIOL) pose more of a challenge when performing DSAEK. We report a technique that can be used during DSAEK to address situations.

Case Report: An 80-year-old white female with a history of intracapsular cataract extraction and a secondary ACIOL in her left eye was referred with pseudophakic bullous keratopathy and 3+ stromal edema. DSAEK was performed with two modifications: 1) occlusive pupilloplasty, and 2) a fixation suture to stabilize the donor tissue during the unfolding process. Her two-week postoperative visual acuity was 20/60.

Video: The surgical video demonstrates the modified DSAEK technique. A 10-0 polypropylene suture was used to create the occlusive pupilloplasty with a slipknot. The endothelium and Descemet were stripped using a 90-degree scraper. The donor tissue was folded in a 60/40 taco fashion and inserted into the anterior chamber. To stabilize the graft while unfolding in a shallow anterior chamber, a fixation suture was placed in the inferior portion of the graft. Air was injected, and the tissue unfolded in good position with the Lindstrom roller, and finally the occlusive pupilloplasty was released.

Comment: Currently, some patients with ACIOL are managed by performing an intraocular lens exchange with a scleral-sutured lens followed 6-8 weeks later by DSAEK. However, the two modifications described above allows DSAEK to be performed successfully in a single procedure with minimal additional surgical time.

To view the full report and accompanying video please go to: <http://bjo.bmj.com/cgi/content/full/91/6/714/DC1>

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