Posterior Lamellar Keratoplasty – Comparison of DLEK and DSAEK in the Same Patients: A patients’ perspective

Irit Bahar, Wiwan Sansanayudh, Eliya Levinger, Igor Kaiserman, Sathish Srinivasan, David Rootman

Abstract

**Purpose:** To evaluate the patients’ perspective on endothelial keratoplasty and to compare the outcomes of deep lamellar endothelial keratoplasty (DLEK) and descemets stripping automated endothelial keratoplasty( DSAEK), performed in the same patients.

**Methods:** A fellow eye, comparative retrospective case series. We reviewed the records of 14 patients (28 eyes) who underwent DLEK in one eye and DSAEK surgery in their fellow eye between 2003 and 2007. Two patients were excluded from the study. Both these techniques were compared for intra and post operative complications, visual and refractive outcomes including higher order ocular aberrations (HOA). Patient’s satisfaction for both procedures was prospectively evaluated using a subjective questionnaire.

**Results:** Nine (75%) of the 12 patients percept better vision in the DSAEK operated eye. Eight (66.6%) of the patients reported faster recovery following DSAEK. Ten (83%) of them preferred the outcomes of the DSAEK surgery.

The intra and postoperative complications were comparable between both procedures. There was no significant difference in visual outcomes between the procedures. However, the DLEK procedure was associated with a significantly higher degree (p <0.05 ) of HOA. Endothelial cell loss was similar following DLEK and DSAEK.

**Conclusions:** We conclude that most patients prefer the DSAEK operation, although there are no differences in visual outcomes between DLEK and DSAEK. Avoidance of surgery-induced hyperopia and HOA is the main benefit of the DSAEK technique.