OMICS Group Conferences
Accelerating Scientific Discovery
3rd International Conference on
Clinical & Experimental Ophthalmology
April 15-17, 2013 Hilton Chicago/Northbrook, USA

Descemet stripping automated endothelial keratoplasty– Is a thinner donor lamella the better choice?

Iva Dekaris

University Eye Hospital Svjetlost, Croatia

Abstract

Visual acuity after Descemet stripping automated endothelial keratoplasty (DSAEK) seems to be influenced by donor lamellar thickness. Therefore, we made a prospective case series of 30 eyes with pseudophakic bullous keratopathy (PBK) undergoing DSAEK with different donor lamellar thickness. Lamellar graft thickness was measured at the visual axis using anterior segment OCT, by the same person, at various time points after DSAEK. Eyes were divided into groups based on Day One postoperative endothelial lamella thickness: standard (_180µm), medium-thick (>180 _ 250µm) and thick (>250µm). Outcome measurements were graft survival rate, best spectacle-corrected visual acuity (BSCVA), endothelial cell density loss (ECD), and degree of astigmatism. Results in DSAEK eyes were additionally compared to 20 PBK eyes which underwent PK. The median postoperative graft thickness of DSAEK eyes was 184.54±47.61 µm. There was no significant difference in age, sex, or preoperative BSCVA between DSAEK groups. The postoperative follow-up period was 24 months. Eyes with lamellar grafts of _180µm thickness showed better postoperative BSCVA and quicker recovery rates compared to the medium-thick and thick grafts (P<0.001). Only eyes receiving _180µm thickness lamellar grafts achieved equivalent BSCVA as PK eyes at month 18. Medium-thick grafts needed a longer period to obtain BSCVA scores similar to thinner grafts, while thick grafts never achieved the BSCVA of standard and PK grafts. All DSAEK eyes with lamella of thickness _180µm, and only 50% of those with medium-thick lamella, had BSCVA of _ 0.6 at 6 months. Lamellas of _180µm ensured a better and quicker visual recovery.

Biography

Iva Dekaris has completed her medical studies at the age of 24, PhD at 30, became associate professor at the age of 35 and professor at 40. Her postdoctoral studies were both at the Schepens Eye Research Institute of Harvard Medical School (Boston, USA) and at the „Ruđer Bošković“ research Institute in Zagreb (Croatia). She became ophthalmic-specialist in 1999 and subspecialized in corneal and cataract surgery. From 2010 she is a President of the European Eye Bank Association (EEBA) and Medical Director of the University Eye Hospital Svjetlost. She has published 42 papers in CC journals and over 250 abstracts.