Ultra-thin descemet stripping automated endothelial keratoplasty (UT-DSAEK) – Why I prefer this technique

Iva Dekaris
University Eye Hospital ‘Svjetlost’, Croatia

Introduction: DSAEK and DMEK are the most popular endothelial keratoplasty techniques. The advantages of DMEK are well known such as the fastest and best visual improvement, near normal anatomical recovery and very low immune rejection rate. Despite that, DSAEK is by far the most often performed technique; mostly because of its better feasibility, lower rebubling rate and since it is less time-consuming. UT-DSAEK, with lamellas thinner than 100 µm, it is the technique that could overcome the disadvantages of both methods.

Purpose: Evaluation of visual outcomes after ultra-thin DSAEK (lamellas <100 µm) and comparison to conventional DSAEK (lamellas of 100-200 µm) in eyes with pseudophakic bullous keratopathy (PBK).

Patients & Methods: A prospective case series of 10 PBK eyes undergoing UT-DSAEK (group 1) and 30 PBK eyes undergo conventional DSAEK (group 2) for the treatment of PBK. UT-DSAEK grafts were obtained with a double-pass technique. All patients underwent serial central grafts thickness measurement with non-contact optical coherence tomography (Zeiss VisanteTM AS-OCT) at various time points after surgery. Differences between the groups regarding best corrected visual acuity (BSCVA) and endothelial cells density loss (ECD) were recorded. Postoperative follow-up was up to 2 years.

Results: UT-DSAEK group showed significantly better postoperative BCVA both in quantity (≥0.1 log MAR) and speed of recovery as compared to conventional DSAEK group (P<0.05). Endothelial cell loss in UT-DSAEK was 41.72% after 12 months and was not significantly different to DSAEK group.

Conclusion: UT-DSAEK provides faster and more complete visual rehabilitation as compared to conventional DSAEK.

Biography
Iva Dekaris has completed her PhD from University in Zagreb after Postdoctoral Fellowship at Harvard Medical School, Schepens Eye Research Institute. She is currently a Medical Director at Eye Hospital “Svjetlost”, Professor of Ophthalmology at University of Zagreb and Rijeka and Associate-Member of the Croatian Academy of Sciences and Arts. She has published 47 papers in CC Journals; works as PI for project “Mechanisms of corneal graft rejection” and has been serving as an Editorial Board Member of 3 and a Reviewer for 6 reputed journals. She has an overall experience of over 20,000 surgeries mainly cataract surgery, corneal transplantations and refractive lens exchange.

iva.svjetlost@gmail.com