

A NOVEL APPROACH TO RISK FACTORS FOR CORNEAL GRAFT FAILURE

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Despite the relative immune privilege of the cornea, graft failure remains a significant issue following keratoplasty. With lower antigenic load, reduced suture-related immunologic triggers and lack of exposure of the graft to immune mediators on the ocular surface appear to reduce the rejection rate of Descemet's stripping endothelial keratoplasty (DSEK) and Descemet's membrane endothelial keratoplasty (DMEK). It could be expected that graft failure rates should be lower for DSEK and DMEK compared to penetrating keratoplasty (PK). However, an earlier report from the American Academy of *Ophthalmology* (AAO), reported primary graft failure rates of 0% to 29% in DSEK and DMEK while the reported failure rates following penetrating keratoplasty (PK) range from 10% to 26% in the literature. Many studies have been reported to determine the risk factors for graft failure after corneal transplantation. One study from United Kingdom concluded that patients with socioeconomic deprivation had an increased risk of graft failure after PK, and according to another study published from United Kingdom, center experience influences graft survival more than surgeon experience. In our recent study, which was presented as poster in AAO, most DSEK failures occurred in first year, while graft failure in PKs is scattered over years.

Statistically, glaucoma did not seem to affect DSEK survival but it significantly decreases survival of PKs ($p=0.002$). Also in our study, DSEK patients have higher graft survival rate and PK patients have lower graft survival rate in proportion with alcohol consumption. When all reports about graft failures are reviewed, we tend to consider that failure in DSEK may be mostly because of graft or surgical risk factors, and failure in PK may be mostly because of host factors. In other words, DSEK may not be as affected from the patients' demographic and clinical characteristics as much as PK.

Biography

Fulya Duman has completed her medical education in the Medical Faculty of Hacettepe University and her *Ophthalmology* profession in Istanbul University, *Ophthalmology* Department. She has worked as an Observer and Research Fellow in several *ophthalmology* departments of Thomas Jefferson University, Philadelphia. She has published more than 12 papers in reputed journals with more than a hundred attributions. Currently she is serving as an Assistant Professor in the University of Health Sciences, *Ophthalmology* Department, Turkey.

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