

# Effect of trabeculectomy on corneal endothelial cell loss

Hirooka K (1) , Nitta E (2) , Ukegawa K (2) , Sato S (2) , Kiuchi Y (3)

1 Ophthalmology and Visual Science, Hiroshima University, Hiroshima, Japan khirooka9@gmail.com.

2 Ophthalmology, Kagawa University, Miki, Japan.

3 Ophthalmology and Visual Science, Hiroshima University, Hiroshima, Japan.

AIM: To investigate changes in corneal endothelial cell density (CECD) after trabeculectomy.

METHODS: This prospective, observational study followed 117 eyes of 117 patients for 2 years after trabeculectomy. The central cornea was examined by corneal specular microscopy prior to and at every 6 months after the surgery. Survival analysis of patients who exhibited a 10% or less reduction of the postoperative CECD compared with preoperative levels was assessed using the Kaplan-Meier survival curve. A Cox proportional hazards model was used to evaluate prognostic factors for decreasing CECD.

RESULTS: At baseline, the mean CECD was  $2420 \pm 357$  cells/mm<sup>2</sup>, while at 6, 12, 18 and 24 months after surgery, the mean CECD was  $2324 \pm 373$  cells/mm<sup>2</sup> (p<0.001). CONCLUSIONS: CECD significantly and continuously decreased after trabeculectomy.

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