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±357 cells/mm2, while at 6, 12, 18 and 24 months after surgery, the mean CECD was 2324±373 cells/mm2. (p

CONCLUSIONS: CECD significantly and continuously decreased after trabeculectomy.

© Author(s) (or their employer(s)) 2019. No commercial re-use. See rights and permissions. Published by BMJ.
