



## DECREASE OF DISC HEMORRHAGES FOLLOWING SUCCESSFUL TRABECULECTOMY

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**Purpose:** To investigate the effect of marked reduction of intraocular pressure (IOP) by trabeculectomy on frequency of disc hemorrhages in primary open-angle glaucoma (POAG) and normal-tension glaucoma (NTG).

**Design:** Retrospective observational case series

**Participants:** 404 eyes of 265 patients with POAG, and 164 eyes of 115 patients with NTG were studied.

**Testing:** Clinical observation at 1- to 3-month intervals at the Glaucoma Service of Gifu University Hospital before and after trabeculectomy with antiproliferative agents.

**Main Outcome Measure:** Disc hemorrhages

**Results:** A Kaplan-Meier life-table analysis was applied to calculate the rate of disc hemorrhage detection before and after trabeculectomy. Trabeculectomy significantly reduced IOP (POAG: 20.1 +/- 4.9 to 11.8 +/- 5.9mmHg; NTG: 15.2 +/- 1.7 to 11.8 +/- 5.9mmHg: mean +/- SD). The life-table analysis revealed that the final cumulative probability of detection a disc hemorrhage after surgery was calculated to be 3.9 +/- 1.1% and was significantly lower than that, i.e., 30.7 +/- 4.9%, before surgery in POAG (P<0.001). Similarly, the final probability after surgery was 12.8 +/- 3.1% and was significantly lower than that, i.e., 49.6 +/- 12.1%, before surgery (P<0.001) in NTG.

**Conclusion:** Significant IOP reduction by trabeculectomy reduces the frequency of disc hemorrhages in POAG and NTG.