

Cataract surgery after trabeculectomy: the effect on trabeculectomy function

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OBJECTIVE: To determine whether the timing of cataract surgery after trabeculectomy has an effect on trabeculectomy function in terms of intraocular pressure control.

METHODS: This was a cohort study nested within a randomized clinical trial. There were 235 participants with glaucoma who had a single previous trabeculectomy augmented with either intraoperative 5-fluorouracil or placebo. Cataract surgery with intraocular lens implantation was performed on participants judged to have significant lens opacity. Cox regression was performed to evaluate the effect of time between trabeculectomy and cataract surgery on the time to trabeculectomy failure, after adjusting for other relevant risk factors. The main outcome measure was time to failure of trabeculectomy, defined as an intraocular pressure of greater than 21 mm Hg.

RESULTS: Of the 235 participants, 124 (52.7%) underwent subsequent cataract surgery. The median time from trabeculectomy to cataract surgery for these patients was 21.7 months (range, 4.6-81.9 months) . The median follow-up period was 60 months (range, 28-84 months) for the cataract surgery group and 48 months (range, 12-84 months) for the non-cataract surgery group. Cox regression showed that the time from trabeculectomy to cataract surgery was significantly associated with time to trabeculectomy failure (hazard ratio, 1.73 CI, 1.05-2.85; P = .03) . The adjusted declining hazard ratios for risk of subsequent trabeculectomy failure when cataract surgery was performed 6 months, 1 year, and 2 years after trabeculectomy were 3.00 (95% CI, 1.11-8.14) , 1.73 (95% CI, 1.05-2.85) , and 1.32 (95% CI, 1.02-1.69) , respectively.

CONCLUSIONS: Cataract surgery after trabeculectomy increases the risk of trabeculectomy failure, and this risk is increased if the time between trabeculectomy and cataract surgery is shorter.

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