Intraocular pressure dynamics during one year followup after phacotrabeculectomy versus trabeculectomy for primary open angle glaucoma
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Purpose: Maintaining intraocular pressure in range of target values interval is one of the desiderates of antiglaucoma surgery. Intraocular pressure (IOP) variations occur after trabeculectomy or phacotrabeculectomy. The aim of our study is to provide data regarding the magnitude of these variations during one year following the surgical interventions mentioned above.

Methods: This is a retrospective study assessing two groups, one comprising of 28 patients that underwent trabeculectomy with 5-fluorouracil and the other comprising of 26 patients that underwent phacotrabeculectomy with 5-fluorouracil. All patients had surgery for uncontrolled primary open angle glaucoma. The IOP was monitored using Goldmann aplanotonometry 1 day, 1 week, 1 month, 3 months, 6 months and 1 year postoperative.

Results: The difference between the mean IOP after 1 year and the preoperative IOP was statistically significant in both groups (9.41 ± 4.32 mmHg, 42% reduction in trabeculectomy group, p value 4.45 x 10^{-19} and 8.03 ± 5.17 mmHg, 34% reduction in phacotrabeculectomy group, p value 1.46 x 10^{-9}) and the mean IOP was significantly reduced at all time points in both groups.

Conclusions: IOP was statistically significant reduced after surgery in both groups. The maximal variation occurred after phacotrabeculectomy, with the highest magnitude in the first 6 months after surgery. In the following 6 months, IOP did not change statistically significant after either phacotrabeculectomy or trabeculectomy.