EFFECT ON INTRAOCULAR PRESSURE IN PATIENTS RECEIVING INTRAVITREAL ANTI-VASCULAR ENDOTHELIAL GROWTH FACTOR INJECTIONS

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Purpose: To determine the effect of intravitreal antivascular endothelial growth factor injections on intraocular pressure (IOP) and identify possible risk factors for the development of increased IOP. Material and Methods: This prospective study included 106 eyes receiving bevacizumab intravitreal injection as treatment for macular edema or active choroidal neovascularization. IOP was measured by Goldmann applanation tonometry immediately before the intravitreal injection and 5 minutes, 1 hour and 15 days after the procedure. The records of the patients were reviewed for age, gender, history of glaucoma, diabetes mellitus, phakic status, systemic and topical medication, and total number of previous injections. Subconjunctival reflux was registered.

Results: Mean preoperative IOP was 15.31 ± 3.90 mmHg and postoperative: 5 minutes 27.27±11.87 mmHg, 1 hour 17.59 ± 6.24 mmHg and 15 days 16.86 ± 3.62 mmHg. The IOP variation was statistically significant between pre- and postoperative (p<0.05). Subconjunctival reflux was recorded in 11.3% and in this subgroup the IOP at 5 minutes and at 1 hour was lower than preoperative IOP (p<0.05). Conclusions: More than one third of the eyes achieved IOPs higher than 30 mmHg. Subconjunctival reflux contributes to a lower mean postoperative IOP. Considerations for management include prophylactic IOP-lowering with medical therapy and/or preinjection ocular decompression for patients with history of glaucoma or ocular hypertension and switching to a pro re nata injection protocol in patients suffering a sustained IOP rise.