**Brimonidine 0.2% versus Latanoprost 0.005% (Xalatan) to prevent intraocular pressure elevation after neodymium:YAG laser posterior capsulotomy**

*Abstract*

Purpose: To compare the efficacy of Brimonidine 0.2% with that of Latanoprost 0.005% in preventing intraocular pressure (IOP) rise after neodymium:YAG(Nd:YAG)laser posterior capsulotomy.

Setting: Alavi hospital, Ardabil University of medical science, Ardabil, Iran

Methods: In this double-masked randomized trial, one hundred patients who had Nd:YAG laser posterior capsulotomy for posterior capsule opacification were prospectively randomized to receive Brimonidine 0.2% (50 patients) or Latanoprost 0.005% (50 patients) before laser surgery. A masked observer measured IOP by Goldmann applanation tonometry before treatment and at 1, 2, 3, 24 hours and 3 days and 7 days after treatment.

Results: The mean IOP changes from baseline were not statistically different between the study groups at 1, 2, 3, 24 hours and 3 days and 7 days (p=0.058, p=0.727, p=0.520, p=0.187, p=0.408, p=0.491) after laser surgery.

The number of eyes with an IOP changes less than baseline, unchanged and with an elevation less than 5mmHg, 5mmHg or more, 10mmHg or more at 1 hour after surgery was statistically different (p=0.038) but at 2, 3, 24 hours and 3 days and 7 days were not statistically different between the study groups.

Conclusion: Brimonidine 0.2% and Latanoprost 0.005% given prophylactically before Nd:YAG laser capsulotomy were effective in preventing IOP spikes after treatment.

Key words: Brimonidine, Latanoprost, Xalatan, YAG laser capsulotomy