

Effect Of Pneumatic Trabeculoplasty (PNT) On Intraocular Pressure In Patients Suffering From Primary Open Angle Glaucoma.

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Purpose: The purpose of this study was to determine the safety and efficacy of pneumatic trabeculoplasty (PNT), a non-invasive treatment to lower intraocular pressure, in patients with primary open angle glaucoma (POAG), in combination with concomitant antiglaucomatous medications.

Methods: 28 eyes suffering from POAG under local medication of Latanoprost were enrolled in this prospective case series. At baseline intraocular pressure (IOP) ranged between 18 to 24 mmHg and was judged as to high in each case. Eyes were treated with PNT at day 0, 7, month 3, 6, 9 and 12. Assessments were performed 1 day, 4 weeks, 12 weeks after treatment including visual acuity, tonometry, slit-lamp and fundus examination, 30-2 perimetry (Humphrey) and optical coherence tomography.



Fig. 1.: Suction ring.

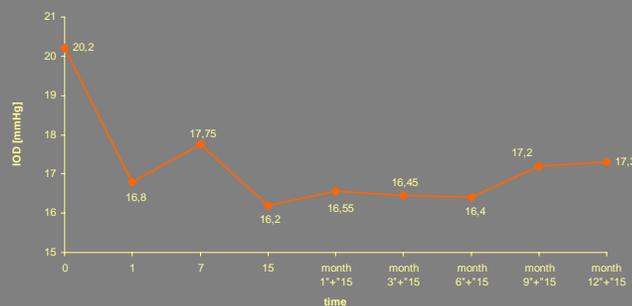


Fig. 2.: Mean IOP at baseline and at follow up visits.

Results: The mean IOP at baseline was 20.2 mmHg. Mean IOP at the last follow up was 17.4 mmHg. A mean decrease in IOP of 2.8 mmHg ($P < 0.01$) was observed comparing the last IOP measurement with baseline IOP. The mean follow up is at 52 weeks. Besides conjunctival hyperemia and corneal epithelium disorder there were no unwished side effects in the treatment group. There were no significant change in VA, perimetry-results and RNFL thickness in both groups.

Conclusions: Pneumatic trabeculoplasty (PNT) seems to be a safe and effective treatment in combination with concomitant antiglaucoma medications to decrease IOP in patients suffering from primary open angle glaucoma (POAG).