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OCULAR PULSE AMPLITUDE IN PATIENTS WITH TOPICALLY TREATED PRIMARY OPEN ANGLE GLAUCOMA; A COMPARATIVE STUDY

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Purpose: To compare ocular pulse amplitude(OPA) in with topically treated primary open angle glaucoma(POAG) and normal cases. To investigate the parameters that may affect to measurements of OPA and reliability and whether OPA is different from normal cases in treated cases

Methods: In this prospective, controlled study, the left eyes of 64 cases (32 males and 32 females) were included. Cases was divided into two group, POAG (33) and control (31). Intraocular pressure(IOP) measurements were performed with Pascal dynamic contour(DCT) and Goldman Applanation(GAT) tonometers. Respectively. OPA measurments were performed with DCT and then central corneal thickness(CCT) was measured by ultrasonic pachymetry. All values were recorded

Results: The mean age was 53.36 ± 10 years (31-80) and CCT was $561 \pm 45 \mu$. Mean amount of antiglaucomtous medication in POAG group was 2.12 ± 1.02 (1-4). IOP with GAT was found 16.48 ± 3.41 mmHg in POAG group, 16.29 ± 4.14 mmHg in normal group ($p = 0.84$), 16.39 ± 3.75 mmHg in all cases. IOP with DCT was 17.84 ± 3.29 mmHg in POAG group, 17.95 ± 3.86 mmHg in normal group ($p = 0.91$) and 17.89 ± 3.55 mmHg in all cases. No differences between groups. OPA was 2.54 ± 1.14 mmH in POAG group, 2.57 ± 0.94 mmHg in normal group ($p = 0.89$), 2.56 ± 1.04 mmHg in all cases. No difference between groups. There was a correlation between OPA and IOP, the most striking correlation was between OPA and DCT ($r = 0.401$, $p = 0.001$). OPA was found to be 2.81 ± 1.16 (0.7-5.4) mmHg in women and 2.30 ± 0.84 (1-4.6) mm Hg in men. This difference was statistically significant ($p = 0.047$). No corelation was found between OPA and age and CCT.

Conclusions: OPA is thought to be an indirect indicator of choroidal perfusion and a predictor of glaucoma progression. in POAG patients who receiving antiglaucomatous treatment; The normal levels of OPA suggest that topical antiglaucomatous therapies may have an effect on ocular perfusion.