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## COMPARATIVE ANALYSIS OF GOLDMAN APPLANATION TONOMETER AND PASCAL DYNAMIC CONTOUR TONOMETER USED TO MEASURE INTRAOCULAR PRESSURE AFTER PNEUMATIC TRABECULOPLASTY

### Key words

Central corneal thickness (CCT), nomography, pneumatic trabeculoplasty (PNT) .

### Summary

**Background:** Dynamic contour tonometry (DCT) is a new and very popular method employed to measure intraocular pressure (IOP), based on Liu and Robert's biomechanical model of the cornea. The Goldman Applanation Tonometer (GAT) is an older, clinically proven and widely applied method of measuring IOP, which works by measuring the particular strength of the surface, using Imbert-Fick method. Central cornea thickness (CCT) is measured with an OLCR pachymeter. The aim of the article is comparative analysis of the intraocular pressure values of Goldman Applanation Tonometer and Pascal Dynamic Contour Tonometer after the pneumatic trabeculoplasty (PNT) procedure in open angle glaucoma (OAG) patients.

**Materials and methods:** Forty-two eyes were qualified for the study. All patients had the diagnosis of glaucoma, and ranged in age from 25 to 65 years. IOP was measured before PNT and seven times afterwards using both DCT and GAT, regardless of the order. CCT was done once prior to the PNT procedure.

**Results:** Measurements made using both DCT and GAT corrected for CCT gave comparable and consistent results.

**Conclusions:** A CCT nomogram can be useful in clinical practice in order to measure the current level of IOP using GAT. IOP is significantly lower after PNT, which confirms the moderate role played by this therapy in the treatment of primary open angle glaucoma (POAG).