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Service (sector) Glaucoma - University: Universidade Federal de São Paulo N° CEP

**Influence of central corneal thickness and age on intraocular pressure measurements made with the Goldmann applanation tonometer and dynamic contour tonometer.**

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Purpose: To evaluate the influence of central corneal thickness and age on intraocular pressure (IOP) measurements made with the Goldmann applanation tonometer (GAT) and dynamic contour tonometer (DCT).  
Material and Methods: A total of 88 healthy Asian individuals (88 right eyes) were enrolled in this study. Central corneal thickness was obtained by ultrasound pachymetry, and IOP was measured using DCT (Pascal tonometer) and GAT. The correlations between IOP measured with both tonometers and central corneal thickness as well as age were analyzed.  
Results: A statistically significant positive correlation between CCT and IOP measured with the GAT was found (0.2-mmHg increase in IOP for each 10- $\mu$ m increase in CCT;  $P = 0.048$ ). There was no statistically significant correlation either between central corneal thickness and IOP measured with DCT or between CCT and DCT-GAT difference. A statistically significant positive correlation between age and the DCT-GAT difference was found (0.8 mmHg increase in difference for each 10-year increase in age;  $P = 0.044$ ). Age was correlated with neither DCT nor GAT IOP.  
Conclusions: Central corneal thickness affects IOP measurements made with GAT, but not DCT. Age affects the difference of IOP between the DCT and GAT.