

## The Association of Central corneal thickness with Intra-ocular Pressure and Refractive Error in a Nigerian Population

Iyamu, Eghosasere and Memeh, Misan (2008) *The Association of Central corneal thickness with Intra-ocular Pressure and Refractive Error in a Nigerian Population*. [Journal (On-line/Unpaginated)]

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### Abstract

The purpose of this study was to determine the variation of central corneal thickness (CCT) with intraocular pressure (IOP) and spherical equivalent refractive error. A total of thirty-nine (N=39) subjects within 20-75 years with mean age  $45.2 \pm 15.4$  years were used for this study. The central corneal thickness was assessed with the Corneo-Gage plus ultrasonic Pachymeter, the IOP with slit-lamp mounted Goldmann applanation tonometer and refractive status by Protec 2000 autorefractor, phoropter and trial lens set. Results obtained showed that there was no linear correlation between CCT and spherical equivalent errors, although the association between them was significant ( $p < 0.05$ ). The linear correlation between CCT and IOP was not statistically significant. The central corneal thickness was weakly correlated with age; with increasing age the central corneal thickness decreases. Neither the central corneal thickness nor the intraocular pressure was affected by gender.

**Item Type:** Journal (On-line/Unpaginated)

**Keywords:** Central corneal thickness, Intraocular pressure, Spherical equivalent refractive error, Mean spherical equivalent myopia, Mean spherical equivalent hyperopia

**Subjects:** [JOURNALS > Online Journal of Health and Allied Sciences](#)

**ID Code:** 5928

**Deposited By:** Kakkilaya Bevinje, Dr. Srinivas

**Deposited On:** 25 Feb 2008 22:44

**Last Modified:** 11 Mar 2011 08:57

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