

Longitudinal effect of topical antiglaucoma medications on central corneal thickness

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BACKGROUND: To determine the change in central corneal thickness (CCT) over time and whether use of long term topical antiglaucoma medications influences CCT.

DESIGN: Case control study with retrospective and prospective data collection

PARTICIPANTS: 187 eyes of 187 glaucoma patients (mean follow up 6.92 ± 1.67 years) being treated with topical antiglaucoma medications (at least 3 years) with no history of surgery or laser were included and compared with 100 eyes of 100 age matched untreated control subjects (mean follow up 6.58 ± 1.93 years) who were glaucoma suspects with normal intraocular pressure (IOP) not on any treatment.

METHODS: Demographic data, CCT and IOP were collected at initial glaucoma diagnosis and at most recent visit and findings were compared between two groups.

MAIN OUTCOME MEASURES: Mean change in CCT in microns (\pm SD)

RESULTS: CCT fell significantly ($p < 0.05$) over time. **CONCLUSIONS:** Prostaglandins appear to be associated with a small but significant CCT reduction over time. Serial CCT measurements might be helpful in glaucoma patients, particularly those on prostaglandins.

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