



Measurement of central corneal thickness is essential to ensure optimal management of glaucoma patients

The Science behind the Tip

The measurement of central corneal thickness (CCT) has emerged as an important parameter to determine in all patients with ocular hypertension and glaucoma.

- Evidence suggests that CCT is an independent risk factor for glaucoma¹. Anatomical correlation between CCT and individual ocular structural differences (lamina cribrosa integrity and scleral rigidity) may explain a biological susceptibility to glaucoma.
- True intraocular pressure is not predictable with linear correction formulas for CCT.
- CCT is a significant predictive factor for conversion from ocular hypertension to glaucoma and for glaucoma progression¹.
- Patients with normal tension glaucoma and black ancestry have thinner CCT than normal².
- Glaucoma patients with thin CCT are more likely to be diagnosed at an advanced stage of disease.
- Myopic excimer laser refractive surgery reduces CCT and anterior corneal curvature and results in post-operative underestimation of Goldman IOP.

References

1. Kass MA, Heuer DK, Higginbottom EJ et al. The Ocular Hypertension Treatment Study: a randomised trial determines that topical ocular hypotensive medication delays or prevents the onset of primary open-angle glaucoma. Arch Ophthalmol. 2002; 120:701-713
2. Copt RP, Thomas R, Mermoud A. Corneal thickness in ocular hypertension, primary open-angle glaucoma, and normal tension glaucoma. Arch Ophthalmol 1999; 117:14-6