



The chronic use of prostaglandin analogues may lead to a modest underestimation of IOP when measured by Goldmann applanation tonometry

The Science behind the Tip

Corneal hysteresis is a biomechanical property of the cornea relating to its elasticity. The measurement of corneal hysteresis is emerging as an important indicator of risk in glaucoma: a low value is associated with an increased risk of progression and advanced glaucomatous damage^{1,2}.

The chronic use of prostaglandin analogues (PGA) may change the biomechanical properties of the cornea in glaucoma patients, resulting in a decrease in the values of corneal hysteresis, corneal resistance factor and central corneal thickness³. A recent prospective, interventional case-controlled study reveals that the use of PGAs has an effect in time on the accuracy of IOP measurements when taken with Goldmann applanation tonometry, leading to an average underestimation of IOP of 1.2mmHg³.

References

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- 3) Meda R, Wang Q, Paoloni D et al. The impact of chronic use of prostaglandin analogues on the biomechanic properties of the cornea in patients with primary open-angle glaucoma. *Br J Ophthalmol* 2017; 101 : 120-125.

Contributor: Dr Gordana Sunaric Mégevand - Geneva
