
Review on corneal hysteresis and its changes following lasik surgery

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Corneal hysteresis is an important indication of the biomechanical properties of the cornea. It is an indicator of viscous damping in the cornea during inward and outward applanation pressure events that is determined by the visco-elastic properties of the corneo-scleral shell. Corneal hysteresis is the difference between the inward and outward applanation pressure. The ORA is a new device which is a non contact tonometer that measures IOP as well as new metrics; hysteresis and corneal resistance factor (CRF) in which a patented dynamic bi-directional applanation process enables measurement of corneal biomechanical properties using an traditional air puff tonometer. The ORA generates force/pressure on the cornea. It also provides a pressure measurement that is significantly less affected by the cornea than other methods of tonometry. Some factors also play a role in CH value. CH in normal eyes was higher than in patients with ocular disease such as keratoconus and Fuchs corneal dystrophy. Also, CH values related to the severity of the disease as it is decreasing with ocular disease such as keratoconus and Fuchs corneal dystrophy. Also, CH value related to the severity of Fuchs as it is decreasing with the severity of the disease. Aging process lowers CH. It is higher in glaucoma patients. CH is significantly lower than average with a much wider range when compared to normal subjects. With the ever increasing popularity of refractive surgery, the knowledge of the factors that determine the biomechanical properties of the eye and their importance in the management of disease process has gained importance. Better understanding of corneal biomechanics might allow for improved predictability of refractive surgery outcomes and may also improve the preoperative identification of eyes at risk of developing ectasia after refractive surgery.