

عنوان مقاله:

Results from the use of the Corvis ST

محل انتشار:

دوازدهمین کنفرانس ملی پژوهش های کاربردی در علوم برق، کامپیوتر و مهندسی پزشکی (سال: 1401)

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خلاصه مقاله:

Objective: To study the biomechanics of the cornea using the Corvis ST. **Method:** The Corvis ST uses a high-speed Scheimpflug camera that captures cross-sectional images of the cornea during the reshaping process. After a steady puff of air, the cornea moves inward and reaches its maximum deformation and then returns to its previous position. In ۳۱ consecutive minutes, consecutive imaging of the cornea and cross-sectional profiles of the posterior and anterior surfaces are performed during the application of external dynamic air pressure. **Conclusion:** Corvis ST is not reliable in measuring HCPD. With the information obtained from this device, a distinction is made between the effects of IOP and corneal biomechanics on corneal deformation. Among the biomechanical parameters, A1T and HCR showed good ability to detect keratoconus. No significant differences were observed between men and women for any of the biomechanical parameters. Age was positively correlated with A1DA, A2DA and HCDA. The cornea is more closely related to collagen fibers and becomes harder with age. CVS-IOP error increased significantly with higher CCT

کلمات کلیدی:

cornea; Corvis ST; Corneal biomechanics; intraocular pressure

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