عنوان مقاله:

Evaluation of Anterior Chamber Angle According to Quadrants and Refractive error using CASIA Anterior Optical Coherence Tomography

محل انتشار:

بیست و نهمین کنگره سالیانه انجمن چشم پزشکی ایران (سال: 1398)

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خلاصه مقاله:

Purpose: To investigate the changes in the anterior chamber angle according to quadrants and refractive status with CASIA anterior optical coherence tomography.Methods: One eye of 115 healthy subjects was selected for anterior segment OCT imaging (OCT) (Tomey Corporation, Nagoya, Japan). The patients were divided to three refractive groups: hyperopic, emmetropic and myopic. Angle parameters of 4 points (0, 90, 180 and 270) were measured in each eye. The angle opening distance (AOD), the trabecular iris space area (TISA), the trabecular-iris angle (TIA), angle to angle (ATA), and angle recess area (ARA) were measured. Results: The mean refractive error (Spherical Equivalent) averaged 1.51±1.1 diopter in hyperopic group, -2.40±1.0 diopter in myopic group and -0.12±0.44 diopter in emmetropic group. There was no significant differencein the anterior angle parameters in hyperopic subjects except ATA and TIA 750 which showed a significant difference comparing four quadrants. Among emmetropic subjects, significant difference in terms of angle parameters was found between quadrants. Multiple comparison of four quadrants showed that angle parameters in 90 degree quadrants differs significantly. In myopic group, statistically significant difference regarding anterior chamber parameters was found between quadrants. Considering multiple comparison results, all angle parameters were significantly narrower in 90-degree quadrants. Conclusion: This is the first study to report the distribution of anterior chamber angle parameters in Iranian population. A narrow anterior chamber angle parameters was found in superior quadrant (90-degree) which is due to highest eyelid pressure of upper eyelid. When analyzing anterior chamber angle parameters and refractive status, results suggested that, the greater inter-quadrants difference induced by more myopic shift. This is supported by this fact that a shorter axial length was associated with a narrower anterior chamber angle.

کلمات کلیدی: