The measure of color vision in early primary open angle glaucoma
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Introduction: The authors establish dyschromatopsy in blue axes in glaucoma [1-5].

Purpose: An investigation interrelationship into early primary open angle glaucoma (POAG) and Color vision defects.

Methods: This study is performed with 32 patients (64 eyes) divided into 2 groups. 1st group 16 patients (32 eyes) with early POAG and second control group 16 patients (32 eyes) were examined with the all-color anomaloscope and HUE - 28 color screening test. In all cases both the red-green equation of Rayleigh and the blue-green equation of Morelend were tested and three variables where determined setting range (SR), calculated mid point (CMP) and anomalous quotient (AQ) as compared to control group.

Results: In the group POAG we establish in the blue-green equation SR was significantly enlargement. CMP was significantly shifted toward the short wavelength. HUE-28 test establish 24 eyes (66.6%) and confirm the predominance of blue-yellow dyschromatopsia axes in POAG. The our results show diminution of the color discriminating sensitivity in the short wavelength half of the visible spectrum and diminution of the blue cone sensitivity in POAG (p < 0.001). No significant changes of the Rayleigh equation.

Conclusion: Additional test in the diagnostics of early POAG is blue-green color vision testing. With the all-anomaloscope - IF-2. The authors conclude that blue-yellow dyschromatopsia axes. Predominance in early POAG with HUE-28 test.