

Myopia and age-related macular degeneration

Andijan State Medical Institute

Abdurakhmanova D.A.

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Myopic macular degeneration (myopic maculopathy) is a complex of potentially coexisting degenerative changes in the macular region associated with myopia, including atrophic (mosaic changes, focal and diffuse chorioretinal atrophy, mHNV-associated atrophy), traction (myopic traction maculopathy) and neovascular (mHNV and its outcomes) components. It is considered as the most serious, irreversible, vision-threatening complication and the leading cause of bilateral visual impairment and blindness due to myopia.

The aim of the work is to identify the relationship between structural and anatomical changes in the eyeball in age—related macular degeneration and moderate and high myopia, as well as to search for the relationship between different types of myopic staphylomas and changes in visual functions.

Material and methods. 60 patients (120 eyes) aged 18 to 45 years with moderate and high myopia, as well as with age-related retinal changes were examined. A pairwise analysis of quantitative and qualitative characteristics was carried out. Quantitative signs included the age of patients, maximally corrected visual acuity (MCI), computer perimetry indicators, axial eye length and retinal thickness in the central zone. Retinal changes were attributed to qualitative signs: pigment epithelial defects (PE), druses, PE detachment, choroidal neovascular membrane, Fuchs spot and diffuse chorioretinal atrophy. The influence of different types of staphylomas on visual functions was also assessed.

Results. A direct dependence of visual functions on the integrity of the retina PE has been established: in the presence of its defects or detachment, as well as other diseases, there is a decrease in the indicators of computer perimetry and MCOZ. The presence of Fuchs's spot and diffuse chorioretinal atrophy reduces MCOZ and causes a decrease in MD. The lowest visual acuity and deep depression of retinal photosensitivity were recorded in patients with combined staphylomas.

Conclusion. The data obtained indicate a direct effect of retinal dystrophic processes on visual functions: MCOZ and retinal photosensitivity indicators decrease with all the described retinal changes. The presence of staphyloma, as a factor aggravating myopia, undoubtedly changes the values of most of the studied indicators in the direction of deterioration.

Literary

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