

12. EYE DISORDERS IN COVID-19 INFECTION

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Introduction. The COVID-19 pandemic caused by SARS-CoV-2 had led to various lesions of internal organs and systems. SARS-CoV-2 is tropic to the ACE-2 receptor, located on epithelial cells of the mucous membranes of the respiratory tract, vascular endothelial cells, neurons, cornea, limbus, and conjunctiva, etc. The eyes are not the main route of transmission of the virus, however, the presence of the ACE2 protein and communication through the nasolacrimal duct with the nasal cavity increases the risk of ophthalmic manifestations of COVID-19.

Aim of study. Literature analysis to highlight the most common clinical ocular manifestations in COVID-19 infection.

Methods and materials. In the Pubmed and Google Scholar databases, we selected and analyzed 40 articles with embedded keywords: "Eye disorders in COVID-19 infection", "Ocular Symptoms in Coronavirus Disease", etc.

Results. Ophthalmic manifestations of Coronavirus infection occur in approximately 6-12% of patients. The most common manifestation of damage to the anterior segment of the eye is conjunctivitis (86.4% of cases). This disease is accompanied by the following clinical picture: dry eyes, hyperemia, chemosis, epiphora, etc. Microvascular retinal disorders increase 8.8-fold in SARS-CoV-2, referring to posterior segment involvement. Venous thromboembolism develops in 19-25% of patients with COVID-19. It is characterized by retinal hemorrhages, microinfarcts in the internal plexus, cotton spots, occlusion of the central retinal vein, etc. One of the rare manifestations, less than 1% of cases, is damage to the cranial nerves, including the optic nerve. This manifestation may develop as a result of hypoxia, ischemia, inflammation, or immunological response to the optic nerve, causing demyelination. The deadly combination of diabetes mellitus and a positive SARS-CoV-2 test is increasingly common in the long-forgotten disease.

Conclusion. At the moment, much attention is paid to the treatment of respiratory diseases, thromboembolic complications and neurological symptoms of Coronavirus infection, while ocular complications in patients infected with SARS-CoV-2 are usually not reported or relegated to the background. This leads to the fact that many ophthalmic manifestations and complications of this disease remain unpublished. The combination of these factors leads to the fact that ophthalmic treatment is complicated by an incomplete picture of the data or even occurs without contacting specialists.