Pathogenetic treatment of patients with COVID-19 at the outpatient stage

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Conflict of interest: none

ABSTRACT. It has been over 2 years since the world run into coronavirus disease (COVID-19), but the pandemic is still going. Today we have a much better understanding of the pathogenesis of the disease and immune defense mechanisms, which opens up new possibilities for the pathogenetic treatment of coronavirus infection. It is known that COVID-19 often has a wavy course: the first wave, which is characterized by mild symptoms, after a temporary improvement passes into the second wave (so-called pulmonary phase), which is much more severe and often fatal. Therefore, it is important to prescribe effective treatment at the early stage of COVID-19, which will allow to change the trajectory of the first wave and prevent its transition to the fatal "ninth shaft". This can be achieved by inhibiting the replication of SARS-CoV-2 virus with etiotropic therapy, and by using of complex pathogenetic therapy to suppress inflammation and prevent cytokine storm, to protect pneumocytes, to minimize the effects of oxidative stress, possible interruption of the coagulation system. This complex approach is especially important for elderly patients or those with chronic cardiovascular, bronchopulmonary and endocrine diseases. In this review, we present the evidence base for the effectiveness of COVID-19 pathogenetic therapy. We hope that the presented therapeutic strategy will help physicians to improve the effectiveness of outpatient management of patients with coronavirus infection.

KEY WORDS: COVID-19, SARS-CoV-2, pathogenesis, pathogenetic therapy, cytokine storm, oxidative stress, immunotrombosis.