

Endothelium is the main target of coronavirus infection

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BACKGROUND. The world currently has a huge clinical experience in the treatment of SARS-CoV-2 infection. However, emerging scientific data opens up new information on the manifestations of coronavirus disease (COVID-19) and its consequences, which can affect both the changes of its clinical picture and the quality of patients' life.

OBJECTIVE. To summarize the results of literature search and own experience of intensive care of endothelial dysfunction in COVID-19.

MATERIALS AND METHODS. The work is based on the results of an internet search with a help of Google and PubMed using the following key words: "intensive care of SARS-CoV-2", "pathophysiological changes in coronavirus infection", and "endothelial dysfunction".

RESULTS. This review describes the links of COVID-19 pathogenesis, mechanisms of viral endothelial damage and hypercoagulopathy, and the main directions of prevention and treatment of endothelial dysfunction.

CONCLUSIONS. SARS-CoV-2 infection promotes endotheliitis in various organs as a result of viral infection. The presence of COVID-19-induced endotheliitis can explain the systemic microcirculation disorders in various vascular beds and their clinical consequences.

KEY WORDS: COVID-19, endothelium, coagulopathies, fibrinolysis, low molecular weight heparins, unfractionated heparin, L-arginine.