

Endothelial protection in patients with coronary heart disease in combination with COVID-19: aspects of the different therapeutic strategies

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Conflict of interest: none

BACKGROUND. Coronavirus disease 2019 (COVID-19) and coronary heart disease (CHD) are pandemics, their synergy significantly affects population morbidity and mortality. Growing evidence suggests that COVID-19 may worsen the state of the CHD precisely by aggravating endothelial dysfunction. In this article, we review the mechanisms of endothelial injury and the role of different therapeutic strategies in protecting the endothelium and improving prognosis in the treatment of CHD patients infected with SARS-CoV-2.

OBJECTIVE. The role of different therapeutic agents, as well as lifestyle modifications (exercise and diet) in patients with CHD in combination with COVID-19, was determined to improve endothelial function, prognosis and survival of this cohort of patients.

RESULTS. Endothelial protection is an important therapeutic strategy in the treatment of patients with CHD and COVID-19. The use of statins, angiotensin-converting enzyme inhibitors, sartans, new anticoagulants, L-arginine, sulodexide, citicoline, resveratrol, targeted foods, and walking can help reduce endothelial dysfunction, the risk of complications and improve the prognosis of these lesions. A comprehensive approach to treatment, including drug therapy and lifestyle modification, is the key to effective management of the endothelium condition in the case of CHD and COVID-19.

KEY WORDS: endothelioprotection, coronary heart disease, COVID-19, endothelium, endotheliitis, coagulopathy, share stress, glucose toxicity, nitric oxide, L-arginine, statins, Mediterranean diet, polyphenols, anti-aging.
