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## ACEIs/ARBs Prescribing in COVID-19 Patients: Role of ACE2 Receptors and Vascular Endothelium

**A**CE inhibitors (ACEIs) and angiotensin receptor blockers (ARBs) are frequently prescribed drugs in treatment of different cardiovascular pathologies, including hypertension and chronic heart failure. Still, it has been shown that chronic use of these drugs leads to increased expression of ACE2 receptors that are essential for binding of SARS-CoV-2 and further viral transmission to susceptible cells. One could suggest that by this action ACEIs/ARBs could actually further facilitate infective process and at the same time, deteriorate overall health. However, the effects of quoted drugs have been also tightly connected to protective actions against inflammatory and pro-coagulant effects of angiotensin II, which is extensively released especially in serious forms of COVID-19. There are emerging number of evidence that protective effects of ACEIs/ARBs are, at least in one part, strongly associated with functional preserving of blood vessels in SARS-CoV-2 affected tissues, in particular, of vascular endothelium. Accordingly, results of numerous experimental and clinical investigations clearly pointed to positive actions of ACEIs/ARBs in preserving vascular endothelium via pleiotropic vasodilating, antioxidant, anti-thrombotic, anti-proliferative, and all together, anti-atherosclerotic intracellular mechanisms. Thus, the current guidelines regarding appropriate ACEIs/ARBs use in COVID-19 patients are still under investigation, and this matter needs further clarification.

### Biography:

Miroslav Radenković, MD, PhD, Professor, University of Belgrade, Faculty of Medicine, Department of Pharmacology, Clinical Pharmacology and Toxicology Education: 2019 Bioethics Masters Program, at Clarkson University and Icahn School of Medicine at Mount Sinai, NYC USA (in progress) Employment: 2016-present University of Belgrade, Faculty of Medicine - Full Professor, Pharmacology