

Cardiovascular complications of novel Wuhan Coronavirus (COVID-19) – A 2020 update

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Opinion

Novel Wuhan Coronavirus (COVID-19) induced atypical viral pneumonia was first reported in Wuhan city, China in December 2019. As reported earlier, severe acute respiratory syndrome coronavirus (SARS-CoV) is a milder version of coronavirus with 10% mortality rate whereas Middle East respiratory syndrome coronavirus (MERS-CoV) has a mortality rate of 37%. Acute respiratory distress syndrome with cytokine storm may be the reason for the increased mortality in Novel Wuhan Coronavirus COVID-19. Clinical presentation of Novel Wuhan Coronavirus COVID-19 is similar to SARS but the mortality rate is documented high among the COVID-19 patients.^{1,2}

Among the patient admitted with COVID-19 upto 40% had pre-existing cardio-vascular disease. Elevated cardiac troponin which suggests virus load induced cardiac injury, was seen in 7.2% of hospitalised patients. Arrhythmias were seen in 16.7%. Patient with known coronary artery disease and heart failure patients are at higher risk than others. We can expect higher mortality when it is associated with acute myocarditis, acute myocardial infarction, and rapid-onset heart failure.³ According to the data available in the previous outbreaks, the patients with SARS or MERS with HFREF had higher requirement of ventilators.⁴

As of now there is no anti-viral treatment proven to be effective for Novel Wuhan Coronavirus COVID-19. Anti-viral medications like Lopinavir and Ritonavir are widely used as they were proved effective in case of SARS and MERS. Use of steroids is controversial as it has no proven benefits on mortality.

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Conflicts of interest

The authors declare that they have no conflicts of interest.

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Author's contributions

Rajesh Rajan participated in data analysis and manuscript preparation. Mohammed Al Jarallah participated in manuscript preparation. Raja Dashti participated in the drafting of manuscript. All authors have read and approved the manuscript.

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