

## Editor's Note: COVID-19 impact over Cardiovascular Patients

Bruno Amato\*

Department of Experimental, Diagnostic and Specialty Medicine, University of Bologna, Bologna, Italy

\*Corresponding author: Bruno Amato, Department of Experimental, Diagnostic and Specialty Medicine, University of Bologna, Bologna, Italy, Tel: 3498635762; E-mail: bruno.amato@unina.it

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In this editorial the discussion is on two of the review contributions entitled "COVID-19 and its Cardiovascular Complications: A Review of the Literature" and "What about STEMI in COVID-19 Women?" Firstly, on COVID impact on CV diseases: The Novel Coronavirus Disease 19 (COVID-19) is a clinical syndrome caused by SARS-CoV-2. While the most regarded severe complication of COVID-19 is acute respiratory distress syndrome, the virus could have multiple impacts in other areas of the body, including the cardiovascular system. The year 2020 has proven to be a challenging year for those devastated by the pandemic caused by SARS-CoV-2 (COVID-19). The virus has impacted the entire world and has left many baffled by its persistent reach. An estimated 185 countries are affected with over 3 million cases accounted for worldwide as of April 28, 2020. While the virus' most feared complication is severe respiratory failure, it has proven to cause complications in other organs, namely the heart. While the cardiovascular manifestations of SARS-CoV-2 are yet to be fully elucidated, it is important to anticipate and build awareness of the various cardiac issues that may arise while taking care of a patient infected with SARS-CoV-2. The literature has shown that these patients may suffer from myocardial injury, arrhythmogenic disturbances, ischemic events and thrombotic events that are attributable, if not, related to infection by SARS-CoV-2. While the most regarded severe complication of COVID-19 is severe respiratory distress syndrome, the virus could have multiple impacts in other areas of the body, including the cardiovascular system. Recent studies have shown a wealth of knowledge in our understanding of the cardiac complications from COVID-19 pneumonia, yet more in-depth biologic and pathologic studies must be done to elucidate why this occurs, in order to provide better therapies for patients afflicted with this devastating and unprecedented disease model.

STEMI in COVID-19 Women: There is no doubt that in the last 2 months during COVID-19 pandemic a smaller number of ST-elevation Myocardial Infarction (STEMI) and Stroke arrived to cardiological and neurological departments. The pathophysiology of STEMI in COVID-19 women is not fully understood; it could be thrombus recanalization, catecholamine storm or Type 2 Myocardial infarction in case

of severe respiratory distress or direct myocardial damage (viral myocarditis). Because most of them have normal coronary arteries an invasive strategy with coronary angiography is important to rule out atherosclerotic severe coronary disease. Several studies stated that less women than men suffer severe COVID-19 inflammatory reactions. The less severe clinical presentation, with lower incidence of venous and arterial thrombosis, could possibly explain the lower number of STEMI in COVID-19 women. Fewer myocardial infarctions in women than in men during COVID-19 pandemic could be not only explained by the fear of being infected in busy casualty departments, but also to the more important role in families during quarantine, making difficult to leave home. The pathophysiology of STEMI in COVID-19 women is not fully understood; it could be thrombus recanalization, catecholamine storm or Type 2 Myocardial infarction in case of severe respiratory distress or direct myocardial damage (viral myocarditis). Because most of them have normal coronary arteries an invasive strategy with coronary angiography is important to rule out atherosclerotic severe coronary disease.

When this Issue on the COVID-19 pandemic goes to press, the whole world is still in the middle of the crisis, though less intensely felt than the earlier moment of the greater lockdown. It is probably safe to suggest that the impacts of this event on our daily lives are one of the most global and most deeply penetrating in world history. In one way or another, all of us have been touched by the crisis and forced to accommodate. Whether the markers of the shared living experiences (face mask, social distancing, online schooling, etc.) will become part of the "new normal" remain to be seen, one thing is certain for intellectual work: we will need to document and analyze how different societies have been organized (and governed) in response to the COVID-19 problematics, in order to learn from each other and to pinpoint the working logics of different social formations. To this end, we have invited friends living in the Asia region and beyond to contribute their critical thoughts and reflections. In certain instances, the local difficulties in this depressing time have prevented them from finishing their writings. We hope their works can eventually be read in the future issues to come.