

Editorial Highlights on COVID-19 impact over Cardiovascular patients

Duraisamy Balaguru

Division of Pediatric Cardiology, UT Houston School of Medicine, USA

Editorial

Journal of Cardiovascular Diseases & Diagnosis aims to publish most complete and reliable source of information on the discoveries and current developments in cardiovascular medicine and making them freely available through online Open Access without any restrictions or any other subscriptions to researchers worldwide. The journal ensures barrier-free distribution of its content through online open access. The journal aims to publish the most exciting research with respect to the subjects of Cardiovascular Diseases and Diagnosis and to provide a rapid turn-around time regarding reviewing and publishing, and to disseminate the articles freely for research, teaching and reference purposes. This editorial provides the brief information on the recently published review articles on COVID-19 complications pertaining to Cardiovascular system.

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 [1]. 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 [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 [3].

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 [4]. 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 [5]. 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 [6].

References

1. Guzik, Tomasz J, Saidi A. Mohiddin, Anthony Dimarco, and Vimal Patel, et al. "COVID-19 and the cardiovascular system: Implications for risk assessment, diagnosis, and treatment options." *Cardiovasc Res* (2020).
2. Kochi, Adriano Nunes, Ana Paula Tagliari, Giovanni Battista Forleo, and Gaetano Michele Fassini, et al. "Cardiac and arrhythmic complications in patients with COVID - 19." *J Cardiovasc Electr* 31 (2020): 1003-1008
3. Ying-Ying Zheng, Yi-Tong Ma, Jin-Ying Zhang & Xiang Xie. "COVID-19 and the cardiovascular system [published online ahead of print March 5,2020]." *Nat Rev Cardiol* (2020): 1-2.
4. Solomon, Matthew D., Edward J. McNulty, Jamal S. Rana, and Thomas K. Leong, et al. "The Covid 19 Pandemic and the Incidence of Acute Myocardial Infarction." *N Engl J Med* (2020).
5. Rodríguez-Leor, Oriol, Belén Cid-Álvarez, Soledad Ojeda, and Javier Martín-Moreiras, et al. " Impact of the COVID-19 pandemic on care activity in interventional cardiology in Spain." *REC Interv Cardiol* 2 (2020): 82-89.
6. Haider, Ahmed, Susan Bengs, Judy Luu, and Elena Osto, et al. "Sex and gender in cardiovascular medicine: presentation and outcomes of acute coronary syndrome." *Eur Heart J* 41 (2020): 1328-1336.

*Address for Correspondence: Duraisamy Balaguru, Associate Professor, Division of Pediatric Cardiology, UT Houston School of Medicine, USA, Tel: +7135007685; E-mail: duraisamy.balaguru@uth.tmc.edu

Received: 30 July, 2020; Accepted: 31 July, 2020; Published: 07 August, 2020

Copyright: © 2020 Balaguru D. This is an open-access article distributed under the terms of the creative commons attribution license, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

How to cite this article: Balaguru Duraisamy. "Editorial Highlights on COVID-19 impact over Cardiovascular patients ". J Cardiovasc Dis Diagn 8 (2020) doi: 10.37421/jcdd.2020.8.413