

LETTER TO THE EDITOR

COVID-19 PANDEMIC AND MANAGEMENT OF HYPERTENSION

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Dear Editor,

In December 2019, a new virus which is known as SARS-COV-2 (COVID-19) was identified. In a short period, this virus spread rapidly and caused significant morbidities and mortalities across the earth. On March 11, 2020, the World Health Organization (WHO) declared a pandemic due to the logarithmic expansion of COVID-19 cases globally.¹ Various guidelines were issued, and a complete lockdown has been observed on a large scale to stop the spread of the virus. Currently, there is no specific treatment for COVID-19 is available. Throughout the year 2020, scientists struggled a lot to find the COVID-19 cure, and many vaccines are successfully developed which would be helpful in the prevention of disease. Nevertheless, the emergence of virus variants remains an issue. The epidemiological trends and clinical features of this disease have been reported in several publications.² Due to comorbidities, COVID-19 disease can exacerbate and may result in increased severity and deadly consequences. In a study, the most common comorbidities in COVID-19 patients were reported as following; diabetes (19%), hypertension (30%), and coronary heart disease (8%). In hypertension, blood pressure elevates from the threshold level. The occurrence of hypertension is not necessarily to be associated with COVID-19 as hypertension is quite frequent in geriatric patients, and these patients are at higher risk of being infected with COVID-19.^{3,4}

Angiotensin receptor blockers (ARBs) and angiotensin-converting enzyme (ACE) inhibitors are widely prescribed for the cure of hypertension and other cardiovascular-related diseases. On the other hand, the COVID-19 virus binds with ACE2 to gain entry into the lung cells. ACE inhibitors and ARBs escalate ACE2 that could hypothetically increase the chance of COVID-19 binding to lung cells and could headway to more damage. Conversely, in experimental studies, ACE2 showed a protective effect against lung injury. Due to the anti-inflammatory potential of ACE inhibitors and ARBs, these agents can reduce the incidence of developing myocarditis and acute respiratory distress syndrome in COVID-19 patients. There is no evidence that hypertension is linked with the COVID-19 and anti-hypertensive medicines (ACE

inhibitors and ARBs) are either harmful or beneficial during the COVID-19 pandemic.⁵

During this unprecedented situation, the Council on Hypertension of the European Society of Cardiology released a statement that “The Council on Hypertension strongly recommends that physicians and patients should continue treatment with their usual anti-hypertensive therapy because there is no clinical or scientific evidence to suggest that treatment with ACEIs or ARBs should be discontinued because of the COVID-19 infection.” After this announcement, many other societies also recommend that patients should continue using their current hypertensive therapy and if necessary, after careful assessment, changes can be made in the hypertensive regimen.⁶ According to estimation, globally, 1.5 billion people can suffer from hypertension by 2025 which may contribute approximately 75% of stroke risk and 50% of heart disease risk. CVDs accounts almost 38% of deaths related to the non-communicated disease (NCDs). In Pakistan, hypertension is a chief health concern that leads to significant morbidity and mortality. Blood pressure can be control with medications and lifestyle modifications. One of the best approaches to control and improve blood pressure is team-based care consisting of doctors, pharmacists, and nurses. During COVID-19, collaborative efforts are required to improve patient’s quality of life and to reduce the healthcare burden.^{7,8}

Keywords: COVID-19, Hypertension, Pandemic, ACE inhibitors

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