

## 21. THE NEED TO CHANGE TREATMENT IN COVID-19 PATIENTS AND BLOOD PRESSURE

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**Introduction.** Hypertension is the most common comorbid disease in patients who have died of CoV-2 SARS infection. Multiple tests trace the relationship between high blood pressure and its treatment to COVID-19 infection. There is much controversy about the effect of angiotensin-converting enzyme inhibitors (ACEIs) and angiotensin II receptor blockers (ARBs) in patients with COVID-19, the relationship between RAAS inhibitors, and increased lethality in these patients is discussed.

**Aim of study.** According to epidemiological statistics worldwide, the mortality of SARS CoV-2 virus is about 4%, in this study, it was proposed to determine the role of HA in increasing the fatality of this virus, and specify the need for a new antihypertensive treatment to reduce the percentage COVID-19 lethality.

**Methods and materials.** This is a synthesis of 25 medical articles and national protocols published during the years 2019-2022, found by the search engines PubMed, NCBI, and Scencedirect.

**Results.** Epidemiological data from China indicate that hypertension, cardiovascular disease, diabetes, and chronic obstructive pulmonary disease are the most common concomitant diseases in patients with COVID-19. Most studies have reported a high prevalence of cardiovascular disease in patients with COVID-19, but have not classified it, making it difficult to estimate the individual effect of high blood pressure on the severity of COVID-19. However, the increase in mortality in patients with HA seems to be significant, and the need for a new treatment, in exchange for RAAS inhibitors (e.g. Captopril), is welcome. The problem with RAAS inhibitors was expected to rise in Europe and the United States, where patients are taking antihypertensive drugs, and especially RAAS inhibitors, a significantly higher percentage than in China. However, studies have shown no association between RAAS inhibitors and COVID-19 susceptibility, worsening, or lethality due to COVID-19.

**Conclusion.** Switching from RAAS inhibitors to another antihypertensive therapy would lead to insufficient blood pressure control, which could lead to more complications in patients with COVID-19. New data show that RAAS inhibitors are even better after hypertensive patients with COVID-19. The use of recombinant ACE2 could be a new therapeutic approach in COVID-19 to reduce the viral load by binding circulating SARS-CoV-2 viral particles and reducing their potential attachment to ACE2 tissue.