

## REVIEW ARTICLE

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## Covid-19 infection and arterial hypertension: the relationship between the two entities

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### Abstract

**Background:** The aim of the study was to breakdown the relationship and its nature between the two pathological entities arterial hypertension (AHT) and SARS-CoV-2 infection. The analysis of existing literature on both topics has been conducted. Sources including journals, books, existing publications and online platforms like Google Academic, PubMed, HINARI were used as search engines. Additionally, guidelines and circulars from European Society of Cardiology, American Heart Association and other respective bodies were also referred to. Data from large meta-analyses and clinical studies were included to bring out the relationship study. Pathophysiological breakdown of the two entities, contradicting proposals regarding treatment, new treatment modalities and *de novo* onset of AHT in post-Covid infection were included to delineate the relationship between the two pathological entities. **Conclusions:** Findings emphasize that the role of arterial hypertension in SARS-CoV-2 infection is mediated through its effect on the regulation of Renin Angiotensin Aldosterone System (RAAS), inflammation and immune responses. *De-novo* arterial hypertension was also reported in post SARS-CoV-2 infection patients. Though some initial studies hypothesized that RAAS inhibitors may add to clinical adversities, most studies afterward disproved the same and in fact revealed a protective role of the same. Angiotensin Converting Enzyme 2 (ACE2) is proposed as a treatment option in SARS-CoV-2 infection. **Key words:** SARS-CoV-2 infection, arterial hypertension, RAAS, RAAS inhibitors.

### Cite this article

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