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# A narrative review of herbal preparations against RNA viruses

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## **ABSTRACT**

**Background:** Throughout history, the plant kingdom has been a source of medicine in almost all cultures. Nowadays, ensuring the safety, quality, and effectiveness of medicinal herbs and their products has become an essential issue in industrialized and developing countries. Phytochemicals are usually involved in pharmacological actions and are used worldwide for various purposes, including the treatment of infectious diseases.

**Objectives:** Although several therapeutics were designed to control infectious diseases, viral infections are still fatal. Currently, evidence extracted from *in vivo*, *in vitro*, and *silico* studies support the antiviral activity of many herbs scientifically; however, the therapeutic potential of many other herbs is still unknown. Plants and their products may potentially control the propagation of viruses in a variety of conditions.

**Methods:** Data were extracted from PubMed, Scopus, Google Scholar, and Science Direct from 1983-2020. We gathered a list of plant extracts, phytochemicals, and herbal formulations that can inhibit RNA viral infections, mainly those are originated from the coronaviruses family. We also provided an overview of their inhibitory mechanism of actions.

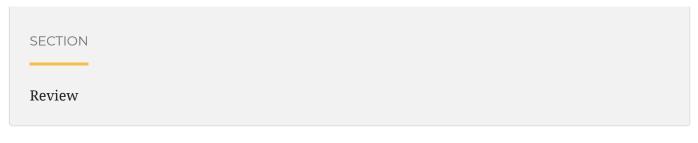
**Results:** Plant families, including Lamiaceae, Asteraceae, and Myrtaceae, contain the highest number of species with anti-coronaviruses activities, respectively.

**Conclusion:** It can be suggested that the combination of these antiviral ingredients with each other, any synthetic compound, or already approved drugs or inhibitors can be a novel approach for antiviral therapies.

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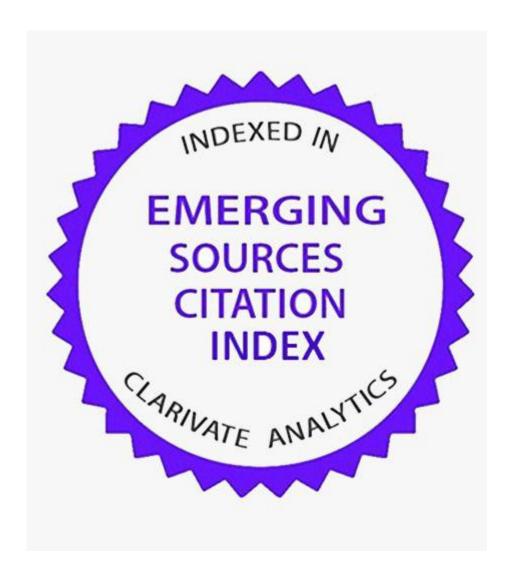
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