**Antiviral and Immunomodulation Effects of Artemisia**

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**Abstract**

*Background and Objectives:* Artemisia is one of the most widely distributed genera of the family Astraceae with more than 500 diverse species growing mainly in the temperate zones of Europe, Asia and North America. The plant is used in Chinese and Ayurvedic systems of medicine for its antiviral, antifungal, antimicrobial, insecticidal, hepatoprotective and neuroprotective properties. Research based studies point to Artemisia's role in addressing an entire gamut of physiological imbalances through a unique combination of pharmacological actions. Terpenoids, flavonoids, coumarins, caffeoylquinic acids, sterols and acetylenes are some of the major phytochemicals of the genus. Notable among the phytochemicals is artemisinin and its derivatives (ARTs) that represent a new class of recommended drugs due to the emergence of bacteria and parasites that are resistant to quinoline drugs. This manuscript aims to systematically review recent studies that have investigated artemisinin and its derivatives not only for their potent antiviral actions but also their utility against the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). *Materials andMethods*: PubMed Central, Scopus and Google scholar databases of published articles were collected and abstracts were reviewed for relevance to the subject matter. *Conclusions*: The unprecedented impact that artemisinin had on public health and drug discovery research led the Nobel Committee to award the Nobel Prize in Physiology or Medicine in 2015 to the discoverers of artemisinin. Thus, it is clear that Artemisia's importance in indigenous medicinal systems and drug discovery systems holds great potential for further investigation into its biological activities, especially its role in viral infection and inflammation.

**Keywords:** ARTs; Artemisia; Artemisinin; SARS-CoV-2; phytochemicals.