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# Conceivable Role of Immunity Booster Herbal Drugs in Covid-19

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## ABSTRACT

**Background:** The outbreak of the novel Coronavirus disease (COVID-19) emerged in December 2019, from (Wuhan) China has now become an emergency of major international concern. The virus is known as Corona due to the presence of crown like spikes on its surface. It is a highly contagious disease which is believed to be the mutated form of SARS (2002) and MERS (2012) virus, causing approximately 3.7% mortality rate worldwide. The main cause of mortality is clusters of severe respiratory illness similar to SARS. The transmission of novel Corona virus occurs via droplets of human sputum, contaminated hands and surfaces. The incubation time has been described to be 02- 14 days and for the treatment of COVID-19, early diagnosis, quarantine, and supportive care are essential for patients.

**Aim:** Focusing the possible role of immunity boosting herbal drugs to develop a better immunity which helps to protect humans from COVID-19 infections.

**Methods:** Immunity boosting herbal drugs and their purified products have shown positive results and may have role as a supportive treatment against COVID-19 infections. Some herbal drugs having immunity boosting effects are mentioned below with their therapeutic actions:

Herbal Drug	Mechanism of Action	Therapeutic Effects	Reference
<i>Allium sativum</i> (Garlic)	Higher concentration of sulphur compounds activates natural killer cell activity	Immunomodulator	<a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4032839/#ref16">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4032839/#ref16</a>
<i>Withania somnifera</i> (Ashwagandha)	Sitoinoside IX and Sitoinoside X helps defending body's immunity by improving cell-mediated immunity	Immunomodulator	Bioactive Phytosterol Conjugates, Part-7, Ghosal <i>et al.</i> (1989)
<i>Curcuma longa</i> (Haldi)	Curcumin (diferuloylmethane) can modulate the activation of T cells, B cells, macrophages, neutrophils, natural killer cells, and dendritic cell causing immunomodulatory effect	Immunomodulator	<a href="http://pubmed.ncbi.nlm.nih.gov/17211725/">http://pubmed.ncbi.nlm.nih.gov/17211725/</a>
<i>Ocimum sanctum</i> (Tulsi)	Eugenol, flavonoids can induce interferon productions leads to anti-inflammatory action	Anti-inflammatory	Shah B, Seth A.K, Textbook of Pharmacognosy and Phytochemistry, (2014), pg:588-589

**Result:** The drugs mentioned above may give promising protection against COVID-19 infection if research is focused on these herbals. *Chawanprash* and *Triphala* are well known immunity boosting formulations available in the market. Apart from these mentioned drugs, *Zingiber Officinale*, *Glycyrrhiza glabra* and *Adhatoda vesica* may play their therapeutic roles for COVID-19 by treating lungs associated diseases.

**Conclusion:** Immunity booster herbals could be a valuable pool for the development of active compounds for protection against COVID-19 infection and may contribute to the mitigation of the spread of the pandemic. We must encourage the research on these immunity boosting herbals and their products to tackle this pandemic.



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