

## Nutritional Pharmacology Aspects and Potential Clinical Uses of Clove Essential Oil in the Treatment of Coronavirus infection and Possibility Protect from Coronavirus (COVID-19)

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### Abstract

Nowadays, most of the natural products are processed and developed as potential pharmacognosy. The majority of antimicrobials of essential oils appear to act either directly on the virus itself on the envelope or during the early stages of virus replication following the internalization of the virus into its host cell. The bioactive components (Pharmacognosy) of clove essential oil display many pharmacological activities such as antioxidant, antibacterial, antiviral, antifungal, antimutagenic, anti-inflammatory, anti-allergic, and dental caries properties. Besides, their inhibitory effects against multiple viruses including HIV and have also inhibitory effects against certain RNA of the respiratory syncytial virus (RSV), and DNA against enveloped viruses (HSV-1 and Newcastle disease virus). In addition, it has been found that the two phytochemicals, betulinic acid and savinin, which found in the essential oil of cloves have been shown to inhibit post binding entry of severe acute respiratory syndrome (SARS) coronavirus into cells, Cloves act directly upon the virus envelope such as Coronaviruses (COVID-19), which are enveloped viruses. Recently, it has been found that acute pulmonary embolism associated with hypercoagulable state with marked increase levels seen in C-reactive protein, and D-Dimer, which considered the main cause of sudden death. It has been shown that the clove lowers the risks for cardiovascular disease clove oil-induced dilate arteries while reducing systemic blood pressure. Besides, it is a potent platelet inhibitor and prevents the formation of a thrombus or a blood clot, this effect is considered an advantage to using clove essential oil for the treatment of coronavirus induced acute pulmonary embolism associated with hypercoagulable leading to sudden death.

In conclusion, clove essential oil may have Nutritional Therapeutic Potential effects due to its various effects, which includes antimicrobial, anti-fungal, anti-viral, anti-inflammatory, cytotoxic, analgesic, anesthetic activities, very potent as antioxidants, and inhibits post binding entry of severe acute respiratory syndrome (SARS) coronavirus into cells. Therefore, essential oil of cloves may be considered the most candidates to combat the coronavirus and protecting against sudden death seen in some patients infected by Coronavirus (COVID 19), resulting from embolism associated with hypercoagulable formation. Clove Oil should only be diffused in well-ventilated places, and diffusing treatments shouldn't exceed more than 60 minutes each time.

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### Biography

Abdulrahim Abu Jayyab is working as a Faculty of Medical and Health Sciences in Emirates College of Technology. Her research interests are Bio chemistry and Biotechnology concepts. She published many papers in international journals.