



COVID -19 AND TURMERIC: A MINI-REVIEW

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ABSTRACT

Turmeric has been used as medicine from ancient days. It has several medicinal properties mainly, antiviral activity, due to which the turmeric can act against viruses such as SARs- CoV-2, Zika, Chikungunya, etc. Whether the turmeric has activity against COVID-19 is a subject in question. If it is effective, turmeric can be consumed in everyday life and can easily solve this pandemic. This review discusses the relationship between turmeric and COVID -19.

KEYWORDS: Turmeric, COVID-19, activity.

INTRODUCTION

COVID showed up in 2019 in Wuhan, China and presently it's all over the world.^[1] The COVID-19 affected patient's immune system is destroyed and along with inflammation causes death.^[2] It is spread from one individual to another through sneezing, coughing or droplet, contact, and aerosol.^[3] On March 11th 2020, WHO declared COVID- 19 as a "global pandemic".^[4] A healthy diet and good lifestyle are very important for the management of pandemics and they help to maintain mental health and well-being to fight against infection.^[5] Thus, an increase in the use of herbal medicine and dietary supplement can be seen in this pandemic.^[6]

Turmeric

The dried and powdered root *Curcuma longa* (turmeric) having a place with the Zingiberaceae family, is being produced in numerous nations worldwide.^[1] It has been generally utilized as a typical solution for sore, throat, and respiratory sicknesses in Asia.^[4] Turmeric is, for the most part, utilized as a characteristic food shading or as a food flavouring agent. For a long time, turmeric has been generally known as a therapeutic plant to treat different infections. Treatment with turmeric has been explored in pre-clinical and clinical examinations.^[3] To improve the bioavailability of curcumin, fresher innovations like adjuvant, nanoparticles, liposomes, micelles, and phospholipid complexes are assessed during the time spent on medication advancement.^[4] Curcumin modulates inflammation and down-regulates, pro-inflammatory cytokines. It also inhibits ACE modulating Angiotensin II synthesis and downregulate inflammation.^[7]

Review of Turmeric Effect

In "traditional herbal medicine candidates as complementary treatments for COVID 19: a review of their mechanisms, pros and cons" shows that curcumin can worsen the condition of COVID -19 patients due to the production of proinflammatory cytokines.^[3] Curcumin(a constituent of turmeric): new treatment option against COVID-19" describes that due to antiviral, antiemetic antinociceptive, antifatigue and bronchodilator effect of curcumin it can be effective against COVID-19.^[8] " Oral curcumin with piperine as adjuvant therapy for the treatment of COVID-19:A randomized clinical trial" shows that curcumin reduce mortality and morbidity and it can be useful in post covid thromboembolic events, antiviral and immunomodulatory activity of curcumin. In-vitro study with curcumin shows the antiviral activity against SARS-CoV.^[9] Silico studies conclude that turmeric can inhibit SARS-CoV-2 viral proteins.^[10] "Phytochemical moieties from Indian traditional medicine for targeting dual hotspots on SARS-CoV-2 spike protein: An integrative in silico approach", shows that *tellinagrandia ii* from *S.aromaticum* and *O.Demathyldimethoxy* curcumin from *c.longa* potentially inhibits the action of SARS-CoV-2 infection.^[11]

CONCLUSION

Turmeric can be used in the treatment of inflammation, infection, neurodegeneration, cancer, cardiovascular diseases and respiratory disease. Mainly due to its antiviral property, it can be used against coronavirus. In post covid thromboembolic events curcumin is a safe treatment option. Turmeric can be used as protection against COVID-19 because it will inhibit SARS-COV-2. Curcumin shows a potential role to treat COVID -19 by

scientific evidence, so it can be considered as a new therapeutic option.

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