

ROLE OF CURCUMIN IN PREVENTION OF COVID 19- A REVIEW**Dr. Pooja Thakur***

Assistant Professor Kayachikitsa, Smt. Urmila Devi Ayurvedic College Hoshiarpur.

Article Received on
20 November 2022,Revised on 10 Dec. 2022,
Accepted on 31 Dec. 2022

DOI: 10.20959/wjpr20231-26969

Corresponding Author*Dr. Pooja Thakur**Assistant Professor
Kayachikitsa, Smt. Urmila
Devi Ayurvedic College
Hoshiarpur.**ABSTRACT**

Curcumin (*Curcuma longa* L.) is an Indian spice that is an essential part of Asian cooking and culture, and has been used in conventional remedy systems such as Ayurveda, Unani and Siddha for centuries, in the red to its wide array of medicinal property. Curcumin, the predominant curcumin in it, influence multiple signal pathway and been establish to possess anti- inflammatory, antioxidant, antimicrobial, hypoglycaemic, wound- healing, chemopreventive, chemosensitizing and radiosensitizing property.^[1] To enhance the bioavailability of curcumin, newer technology such as adjuvant, nanoparticles, liposomes, micelles and phospholipid complexes have been evaluate in the procedure of drug growth. It has been told in

various studies that curcumin posses antibacterial, antiviral and antimicrobial property. After looking towards all properties, an attempt has made to collect all these in a paper.

KEYWORDS: *Curcumin, Corona, Virus, Alkaloid.***INTRODUCTION**

Curcumin is a kitchen Indian spice derived from the *Curcuma longa* plant; the Latin name *Curcuma* is copied from kourkoum, the unique Arabic name for saffron. This plant is native to hot areas of Asia and is a member of the ginger family. The curcumin plant grows to 3–5 feet in height and has colourful, yellowish flowers. Its subversive stem (rhizome) is harvest and ground into a powder. The powdered spice is used as a food additive for flavour and colour. It is also used as a skin dye and aesthetic agent for weddings and other ceremonies.

The active feature in curcumin, curcumin, is answerable for the bright yellow colour of the spice. Curcumin and its interconnected compound are called curcuminoids. Curcumin

generally contains 1-7% curcuminoids depending on the source of the plant as well as soil and growing conditions. Curcumin has been used as an herbal medicine for hundreds of years and it is claim to have antioxidant, anti-tumour growth, and anti-inflammatory activity. In animal studies, curcumin exhibits action against multiple types of cancer. Due to its anti-inflammatory property, curcumin has been future as a possible treatment for COVID-19. However, there is at present no in print research regarding the correct dosage, duration of treatment, route of administration, or effectiveness of curcumin or curcumin for COVID-19.

A major restriction of curcumin is its poor assimilation by the human body. Studies include shown that when curcumin is swallow it is only detectable after large doses are taken. Curcumin is often marketed along with piperine .Even after the addition of piperine, curcumin still has a narrow presence in the human body after it is engaged by mouth. In one study, curcumin was only obvious for a few hours after oral ingestion.

As per a study published in the Journal of General Virology Kitchen ingredient curcumin has potent antiviral properties. Curcumin has a natural compound called Curcumin which can eliminate certain viruses. The golden spice is loaded with medicinal benefits. For several centuries, Curcumin has been used to fight and cure ailments. It is one of the most important ingredients in Indian kitchens; it adds the perfect flavour to our food and the perfect dash of good health too.^[2-4]

Curcumin has been shown to inhibit the replication of some types of viruses, including dengue virus, hepatitis B and Zika virus. The compound has also been found to have a number of significant biological effects, including antitumor, anti-inflammatory, and antibacterial activities.

Other Benefits of Turmeric (curcumin)

1. Healing properties: it has Curcumin compound that is rich in anti-inflammatory, antioxidants, and anti-bacterial properties which helps in healing wounds.

2. Reduces the Risk of Cardiovascular Diseases: Heart diseases are quite prevalent in India and the world. Curcumin improves your heart health by improving the function of the blood vessel lining called endothelium. According to some studies, curcumin improves endothelium function. Studies showed that it is as effective as the drug Atorvastatin or works as well as exercises.

3. Improves digestion: Curcumin can be used to improve digestion. You can consume it with a glass of milk. It stimulates the production of bile improving your digestion. It also helps in reducing gas and bloating. It also helps in improving metabolism.

4. Antifungal Properties: The essential oils extracted from this kitchen ingredient exhibit anti-fungal properties and it also fights respiratory tract viruses too. Haldi if mixed with milk and black pepper (Kadha) can also help in curing cough.

5. Reduces the risk of Diabetes: Enough usage of curcumin can help in reducing the cell-damaging effects of chronic hyperglycemias in diabetes patients.^[5-6]

DISCUSSION

The common symptoms of mild COVID-19 illness are mainly fever, dry cough, and tiredness. In moderate to severe forms of the disease, patients may experience difficulty breathing, chest pains, and hypoxia, which may progress to acute respiratory distress syndrome (ARDS), total organ failure, and death. Although the mechanisms underlying COVID-19 pathogenesis are still under investigation, altered immune responses in the host appear to play a critical role. The infection and viral replication process can result in immune system activation and secretion of pro-inflammatory mediators referred to as a 'cytokine storm'. In turn, this can cause acute inflammation, a hyper-immune response, coagulopathies, and thromboembolic sequelae, chief to damaging effects for the host. In study by Amir et al efficacy of supplementary curcumin treatment for improving general SARS-CoV-2 infection symptoms and mortality outcomes in mild, moderate, and severe COVID-19 patient groups. The benefits included decreased resolution time of several common COVID-19 symptoms, including cough, chills, myalgia, tachypnea, anaemia, and amelioration of lymphocyte counts. Furthermore, curcumin treatment decreased the mRNA expression and secretion of some, but not all, pro-inflammatory cytokines involved in the cytokine storm effect.^[7-10]

CONCLUSION

After seeing the benefits of Haldi, we can easily say by looking towards previous studies too that turmeric as Indian spice proved to be a boon for Covid patients.

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