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A Common, Cure and Curative Study of 21 Traditional plants used in COVID-19 pandemic time.

Kamal Kant Sharma[1], Laxmi Kant Sharma[2], Shiv Kumar[3]

[1]Department of Botany, Binnani Kanya College, Bikaner (Raj.), INDIA
[2]Department of Zoology, Rama Devi Mahila College, Harnathpura, Nua (Raj.), INDIA
[3]Institute of Allied Medical Science and Technology, NIMS University, Jaipur (Raj.), INDIA

Abstract
During the COVID-19 pandemic, people across the globe turned to traditional and ethnobotanical remedies to boost immunity, alleviate symptoms, and prevent infections. Plants have long been a vital source of medicine, and many common herbs and plants possess antimicrobial, antiviral, and immunomodulatory properties. This paper delves into the botanical names, useful parts, common names, family names, and medicinal uses of various plants such as *Zingiber* (Ginger), *Capsicum, Azadirachta* (Neem), *Aloe*, and others, in relation to COVID-19 prevention and protection. The plants examined have been used in traditional medicine for centuries and have gained renewed attention for their potential roles in combating viral infections, particularly in light of the global health crisis posed by the COVID-19 pandemic.

Keywords: Traditional, ethnobotanical, immunity, plants, COVID-19, Pandemic, Cure

Introduction

The global outbreak of COVID-19 emphasized the need for holistic health practices to protect and strengthen the immune system. While the medical community focused on vaccinations and pharmaceutical treatments, traditional knowledge of ethnobotanical plants emerged as a complementary avenue for health maintenance and disease prevention. Many of these plants, widely used in various traditional systems of medicine, are believed to possess antimicrobial, antiviral, anti-inflammatory, and immune-boosting properties. This paper explores the therapeutic potential of these plants, discussing their use in preventing and managing viral infections, particularly in the context of COVID-19.

COVID-19 Pandemic plants

1. *Zingiber officinale* (Ginger)

- **Common Name**: Ginger, Adrak, Sunth(Dry Ginger)
- **Family**: Zingiberaceae
- **Useful Part**: Rhizome
- **Uses**: Ginger is known for its anti-inflammatory, antioxidant, and antimicrobial properties. It is commonly used to relieve symptoms such as sore throat, cough, and respiratory congestion. During the pandemic, ginger tea or ginger-infused drinks were consumed to boost immunity and reduce

inflammation. Its antiviral properties are also noted, making it a commonly used remedy to prevent viral infections, including COVID-19.

2. *Capsicum annuum* (Chili Pepper,)

- **Common Name**: Red Chili, Capsicum
- **Family**: Solanaceae
- **Useful Part**: Fruit
- **Uses**: Capsicum contains capsaicin, a compound that has antimicrobial, anti-inflammatory, and immune-boosting properties. Capsicum is used to treat colds, coughs, and sore throats, which are common symptoms of viral infections. During the pandemic, chili peppers were consumed to boost circulation, relieve congestion, and reduce inflammation in the respiratory tract, promoting overall immune health.

3. *Azadirachta indica* (Neem)

- **Common Name**: Neem
- **Family**: Meliaceae
- **Useful Part**: Leaves, Bark, Seeds
- **Uses**: Neem has been traditionally used as an antibacterial, antiviral, and antifungal agent. Its role in combating viral infections, including respiratory diseases, is well-known. Neem leaves are used in decoctions and infusions to detoxify the body and improve immunity. During COVID-19, neem-based remedies were used as preventive measures to boost immune function and reduce the risk of viral infections.

4. *Aloe vera* (Aloe)

- **Common Name**: Aloe Vera, Gwar patha
- **Family**: Asphodelaceae
- **Useful Part**: Leaves (Gel)
- **Uses**: Aloe vera is renowned for its soothing and anti-inflammatory properties. The gel extracted from its leaves is commonly used to treat skin conditions, but it is also beneficial in alleviating gastrointestinal issues and supporting immune function. During the pandemic, Aloe vera was consumed in the form of drinks or gels to help with inflammation, hydration, and digestion.

5. *Nyctanthes arbor-tristis* (Night Jasmine)

- **Common Name**: Night Jasmine, Parijat, Har singar
- **Family**: Oleaceae
- **Useful Part**: Flowers, Leaves
- **Uses**: Night Jasmine is used in traditional medicine for its sedative, anti-inflammatory, and immune-boosting properties. Its flowers and leaves are used in concoctions to treat colds, coughs, and fever. The plant has antioxidant and antiviral properties, making it a potential remedy for preventing respiratory infections and promoting better sleep, especially during illness.

6. *Ailanthus altissima* (Tree of Heaven)

- **Common Name**: Tree of Heaven, Arru
- **Family**: Simaroubaceae
- **Useful Part**: Leaves, Bark
- **Uses**: The Tree of Heaven is known for its antimicrobial properties and has been traditionally used in herbal medicine to treat various ailments, including coughs, fevers, and respiratory infections. Its

leaves are believed to have immune-stimulating effects, and it is considered a potential plant for promoting overall health and preventing infections like COVID-19.

7. *Adhatoda vasica* (Vasaka)

- **Common Name**: Malabar Nut, Vasaka
- **Family**: Acanthaceae
- **Useful Part**: Leaves
- **Uses**: Vasaka has been used for centuries in Ayurvedic medicine for treating respiratory problems such as asthma, bronchitis, and coughs. It is known for its antitussive (cough-suppressing) and bronchodilator properties, making it beneficial during viral infections like COVID-19 to manage coughs and respiratory distress.

8. *Punica granatum* (Pomegranate)

- **Common Name**: Pomegranate, Anar
- **Family**: Lythraceae
- **Useful Part**: Fruit, Seeds, Peel
- **Uses**: Pomegranate is a rich source of antioxidants, particularly polyphenols, which help strengthen the immune system and fight infections. It has been traditionally used to improve cardiovascular health and prevent digestive issues. During the pandemic, pomegranate juice or extracts were consumed to boost immunity and aid in fighting off infections, including COVID-19.

9. *Coriandrum sativum* (Coriander)

- **Common Name**: Coriander, Cilantro, Dhania, Dhana
- **Family**: Apiaceae
- **Useful Part**: Leaves, Seeds
- **Uses**: Coriander has antifungal, antibacterial, and antioxidant properties. The leaves and seeds are used in cooking and in traditional medicine for their detoxifying and immune-boosting effects. Coriander has been used during the pandemic to enhance digestive health, reduce inflammation, and promote overall wellness.

10. *Curcuma longa* (Turmeric)

- **Common Name**: Turmeric, Haldi
- **Family**: Zingiberaceae
- **Useful Part**: Rhizome
- **Uses**: Turmeric, containing the active compound curcumin, has powerful anti-inflammatory, antioxidant, and antimicrobial properties. It is widely used to treat a variety of conditions, including respiratory diseases. During the COVID-19 pandemic, turmeric was used in golden milk and other preparations to boost immunity, reduce inflammation, and help fight infections.

11. *Withania somnifera* (Ashwagandha)

- **Common Name**: Ashwagandha, Indian Ginseng, Askand
- **Family**: Solanaceae
- **Useful Part**: Root
- **Uses**: Ashwagandha is a potent adaptogen known for its ability to reduce stress, improve stamina, and enhance immunity. It has anti-inflammatory and antiviral properties, making it valuable for protecting against viral infections like COVID-19. Ashwagandha root is commonly used in powder form to boost the immune system and improve overall health.

12. ***Cinnamomum verum/ Cinnamomum zeylanicum***(Cinnamon)

- **Common Name**: Cinnamon, True/ Ceylon Cinnamon Tree, Dalchini
- **Family**: Lauraceae
- **Useful Part**: Bark
- **Uses**: Cinnamon is well-known for its antimicrobial properties and is commonly used in Ayurvedic medicine to treat respiratory issues. It is believed to help fight viruses and improve circulation, making it a popular remedy for preventing infections. Cinnamon has also been used to enhance immune function during the pandemic.

13. ***Piper nigrum*** (Black Pepper)

- **Common Name**: Black Pepper
- **Family**: Piperaceae
- **Useful Part**: Fruit
- **Uses**: Black pepper has been used for centuries as a spice and medicine. Its active compound, piperine, is known to have antimicrobial, anti-inflammatory, and antioxidant properties. It is commonly used to treat colds, coughs, and respiratory infections, making it an effective remedy during the COVID-19 pandemic.

14. ***Ocimum sanctum*** (Tulsi)

- **Common Name**: Holy Basil, Tulsi
- **Family**: Lamiaceae
- **Useful Part**: Leaves
- **Uses**: Tulsi is revered in Ayurveda for its immunomodulatory, antiviral, and anti-inflammatory properties. It is often used to prevent respiratory infections and enhance immune function. During the pandemic, tulsi was consumed in the form of tea or extracts to reduce symptoms of illness, reduce stress, and prevent viral infections like COVID-19.

15. ***Glycyrrhiza glabra*** (Licorice)

- **Common Name**: Licorice, Mulethi
- **Family**: Fabaceae
- **Useful Part**: Root
- **Uses**: Licorice root has antiviral and antimicrobial properties and is commonly used in traditional medicine to treat coughs and sore throats. During the COVID-19 pandemic, mulethi was used to soothe sore throats, relieve coughing, and boost the immune system.

16. ***Syzygium aromaticum*** (Clove)

- **Common Name**: Clove, Lavang
- **Family**: Myrtaceae
- **Useful Part**: Flower Bud
- **Uses**: Clove is known for its potent antiviral, antifungal, and anti-inflammatory properties. It is commonly used to treat respiratory issues and relieve pain. During the pandemic, clove was often used in herbal teas and oils to prevent infections and relieve symptoms of illness.

17. ***Elettaria cardamomum*** (Cardamom)

- **Common Name**: Cardamom, Elaichi
- **Family**: Zingiberaceae
- **Useful Part**: Seeds

- **Uses**: Cardamom has antimicrobial, antioxidant, and anti-inflammatory properties. It is commonly used to treat respiratory conditions such as cough and asthma. During the pandemic, cardamom was used in teas and herbal remedies to improve digestion, reduce stress, and enhance immune function.

18. ***Piper cubeba*** (Choti Pepper)

- **Common Name**: Cubeb Pepper, Choti Pepper
- **Family**: Piperaceae
- **Useful Part**: Fruit
- **Uses**: Cubeb pepper is used in traditional medicine for its antimicrobial, anti-inflammatory, and expectorant properties. It is commonly used to treat coughs and respiratory infections. During the pandemic, it was used to boost immunity and protect against viral infections.

19. ***Mentha spicata*** (Spearmint)

- **Common Name**: Spearmint, Mint
- **Family**: Lamiaceae
- **Useful Part**: Leaves
- **Uses**: Spearmint has cooling, anti-inflammatory, and antimicrobial properties. It is commonly used to treat digestive issues and respiratory conditions. During the pandemic, spearmint tea was used to alleviate symptoms of cold and cough, reduce stress, and boost immunity.

20. ***Carica papaya*** (Papaya)

- **Common Name**: Papaya
- **Family**: Caricaceae
- **Useful Part**: Fruit, Leaves
- **Uses**: Papaya is rich in antioxidants and vitamins, particularly vitamin C, which plays a critical role in immune function. The leaves and fruit are used to improve digestion and promote overall health. During COVID-19, papaya was consumed for its immune-boosting and anti-inflammatory effects.

21. ***Tinospora cordifolia*** **(Thunb.) Miers**

- **Common Name:** Giloy, Amrita, Gudduchi
- **Family:** Menispermaceae
- **Useful Part :** Leaves, Stem
- **Uses*:*** contains diverse phytochemicals, including alkaloids, phytosterrols, glycosides and tinosporide etc. Traditional Medicinal plant and although used in Ayurveda over centuries in the belief that *Tinospora* has medicinal properties. There is no evidence from reviews of clinical research to indicate that it has any effect. During the 2020–22 COVID-19 outbreak in India, the Ministry of AYUSH recommended use of *T. cordifolia* ("giloy") as a home remedy for immune support, but such a practice appeared to be associated with hepatitis cases among six people in Mumbai who used boiled or capsule preparations of the plant.

Conclusion:

The COVID-19 pandemic has highlighted the importance of using natural, plant-based remedies to strengthen immunity, prevent viral infections, and alleviate symptoms. The plants discussed above, such as ginger, turmeric, neem, and others, have long been integral to traditional medicine systems across the world. While these plants have proven beneficial properties, they should be used in conjunction with modern medical advice and treatments. Sustainable cultivation and responsible use of these plants ensure that they continue to play a vital role in global health, particularly during times of crisis like the COVID-

19 pandemic.

"Have/Go Green, Have/Make Clean, Sustain Environment"

References:

1. Kapoor, L.D. (2001). *Handbook of Ayurvedic Medicinal Plants*. CRC Press.
2. Meteria Medica
3. Maheshwari, S., & Sharma, A. (2019). Ethnobotanical studies on medicinal plants in Hadoti region of Rajasthan. *Journal of Pharmacognosy and Phytochemistry*, *8*(2), 546-549.
4. Sharma, H.K. (2014). *Traditional Medicine and Sustainable Agriculture*. Academic Press.
5. Sharma, K.K.- (2010). *"Phytodiversity of Churu District"* Rajasthan, Ph.D. Thesis submitted to M.G.S. University, Bikaner, Rajasthan, India (Bharat).
6. Sharma, K. K.-(2012). "Taxonomic study of some lower and higher plants" Lap Lambert Academic Publication. Germany, Europe. ISBN: 978-3-659-16531-3.
7. Sharma, L.K. & Sharma, K.K.,-(2024).Wings of Winter: Migratory Avi-Fauna at Bikaner, Rajasthan, India. Lap Lambert Academic Publication. UK, Europe. ISBN: 978-3-659-54787-4.
8. Shetty, B. V. & R. P. Pandey. 1978. Vegetation and floral composition of the Rajasthan Desert. Arid Zone Research in India, Silver Jubilee Souvenir (1952-1977), pp. 25-31. Central Arid Zone Research Institute, Jodhpur.
9. Shetty, B. V. & V. Singh. 1987. *Flora of Rajasthan*, Vol. I. BSI, Culcutta.
10. Shetty, B. V. & V. Singh 1991. *Flora of Rajasthan*, Vol. II. BSI, Culcutta.
11. Shetty, B. V. & V. Singh 1993. *Flora of Rajasthan*, Vol. III. BSI, Culcutta.
12. Singh, V. & R. P. Pandey. 1998. *Ethnobotany of Rajasthan.* Scientific Publishers, Jodhpur.
13. WHO (2020). *Traditional Medicine and COVID-19*. World Health Organization.