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Potential medicinal plants for COVID-19

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Abstract

Corona Virus Disease was spread in the year 2019, so it was named as COVID-19. It has become pandemic in no time. If infected person sneeze openly and come in contact with other persons it spreads at a very fast rate. Covering the mouth while sneezing and distancing the people prevent the spreading of the disease. Pandemic brought the whole world in such a condition that every one has to protect themselves. Steam inhalation, intake of hot water, decoction of Tulsi, black Pepper, Ginger etc. are preventive measures. Increasing the immunity decreases the chance of infections. Many medicinal plants are immunity boosters and antivirals. Different medicinal and aromatic plants are effective against different type of viruses. Many medicinal plants have antiviral, antibacterial, antimicrobial as well as antifungal properties. Some plants are effective against respiratory diseases. Research may be carried out on the effectiveness of these potential medicinal plants against COVID-19 and like pandemic situation.

Keywords: COVID-19, pandemic, decoction, immunity

Introduction

COVID-19 is a viral disease spread throughout the world. This pandemic has taken lives of lakhs and millions of human beings around the world. In spite of taking maximum precautions, medicines, immunity boosters, people could not survive. Looking to the adverse effects of the virus in long run, we have to be very careful regarding our health in coming days. Taking all protecting measures we have to see how can we survive in future, because many pandemics the world had seen in past and this is the time to study some of the important medicinal plants having antimicrobial, antiviral properties. These plants can be studied for its best possible use for cure of such kind of viral diseases which may spread in future. Traditional system of Medicine is efficient for combating the pandemics, just we have to revive them. Our traditions too have major effect on our lives which were truly scientific.

The tragedy of the world by a deadly virus which is named as Corona virus disease-19 has brought the world in a pandemic condition. The mostly affected are the humans and animals. Each and every moment we have to be alert for - social distancing, wearing mask, covering the head also, not touching at public place, sanitizing our hand frequently etc.. We have to wear full sleeved, neck tight and clothes covering the whole body, use of shocks, gloves and a hand sanitizer is a must then only we can move out of the home. If it is extremely essential, then only we should go out, otherwise we can get everything - like milk, vegetables, groceries and other life necessities at our doorstep through online shopping.

The COVID-19 has influence on our daily life so much so that we are now used to have mask, social distancing and very disciplined way we are following the instructions or guidelines suggested by WHO or our Government in this regard. For safety measures of the COVID-19, lockdown decision has been taken by the government is extremely essential and it is the sword to win the battle of the COVID-19. The people should take different medicines i.e. ayurvedic, homoeopathic, allopathic or any other alternative medicine for their safety to keep away themselves from the virus infection.

There are various microbes on the earth, in the atmosphere, every where they are found enormously. Its multiplication capacity is highest among all the organisms. Especially when we are talking about a virus, it multiplies at highest rate and also spreads very faster by touching, inhaling, sneezing etc. what can be done to protect ourselves from such deadly virus is to get our immune system strong enough to combat the viral infections and in my opinion we should follow all the guidelines recommended by WHO or our Government or medical fraternities. Next step comes to boost the immunity. It is gained by performing pranayam, yogasanas, meditations and exercises, walking etc. regularly. We can use hot water to gargle, drinking and to take bath, oil massage on whole body including ears and nose

(i.e. instill 2 -2 drops of sesame oil in ear and nose) have sound sleep, taking light healthy satvic food, green vegetables, fruits, milk etc. can be included in the diet. We all can take chyavanpras every morning. Our body should be in alkaline state, if we are taking acidic foods/ drinks, we should take it if it is extremely essential, but should keep in mind that acidic body can be the favourable condition for viruses/microbes to flourish. *Aloe vera* is found the best one to make our body alkaline.

Our Indian Traditions are now getting popularity as scientific evidence based system and is now acknowledged by the whole world. Not only Indian System of Medicine but our rituals are also has scientific basis like having Tulsi plant in every home, performing prayers to God/Goddesses every day and night by clapping, lighting diya, dhup of guggal gum, loban, camphor or other herbs, like Neem and Tulsi leaves, Ajwain seeds etc., ringing bells and making shankhnad etc. During clapping, pressure exerted on all the acupressure points of our palms, so blood circulation in body is enhanced, Dhupa removes viruses, ringing bell and performing shankhnad also helps removing viruses/microbes from the air. Tulsi is itself a airpurifire and also a mosquito repellent herb. Thus keeps our surrounding clean and virus free.

We usually decorate our houses with Asopalav / Ashoka /Mango leaves when some gatherings like puja,homa-hawan or any religious ceremony takes place. Using Ganga jal, Gomutra (Cow urine), Gobar cakes (Cowdung cakes) etc. in our religious rituals is only and only science. We have forgotten all our traditions, which we used to perform, has come back, nature has reminded us to do so. Nature has given us second chance to survive.

To keep away from virus, decoction of Clove, Tulsi, Cinnamon powder, Raisins and Honey as recommended by Ayush department, Govt. of India, can be taken every day. Avoiding refrigerated food items like cold drinks, ice creams, cakes or pastries and also fast foods like pizza, burgers, puffs etc. We should take freshly prepared and easily digestible food only.

Many medicinal and aromatic plants have been used in Indian System of Medicine and have potential to cure some severe respiratory infections/ disorders. Looking to the characteristics, following medicinal plants may be used against COVID-19. Research work may be carried out on the efficacy of these medicinal plants against Corona Virus Pandemic. The scientific name of the plants with part of the plant used in disease and its characteristics are mentioned below.

1. *Adhoda vasica*- Arusa, Malabar Nut



Leaves, flowers and roots

Chronic Bronchitis, lung disorders, cough, asthma, antibacterial and anti-inflammatory

2. *Aloe vera* – Ghikunvar, Aloe



Leaf Gel

Aloin and emodin act as analgesics, antibacterials and antivirals

3. *Andrographis paniculata*- Kalmegh, The Creat



Whole plant

Antipyretic, analgesic, immunomodulatory, antimicrobial and antiviral, used in cough, cold and fever

4. *Azadirachta indica* – Neem, Azadirach



All parts of the tree

Antiparasitic, antiseptic, immunomodulatory, antimicrobial and antiviral

5. *Centella asiatica* – Mandukparni, Brahmi



Leaves

Memory enhancer, antistress, antimicrobial, immunomodulatory

6. *Clitoria ternatea*- Gokarni, Butterfly Pea



Flowers, Leaves, pods and Roots

Antiasthmatic, memory booster, antistress, antimicrobial, antipyretic, antioxidant

7. *Coleus aromaticus* – Patharchur, Indian Borage



Leaves

Antioxidant, antibacterial, antimicrobial, insecticidal, chronic cough, Bronchitis, Asthma

8. *Curcuma longa* – Haldi, Turmeric



Rhizome

Immunity booster, antimicrobial, antiviral, antiseptic and anticancer

9. *Emblica officinalis* - Aonla, Indian Gooseberry



Fruits

Immunomodulatory, anti-inflammatory, antipyretic and analgesic

10. *Foeniculum vulgare*- Saunf, Fennel



Seeds, leaves, bulbs

Anticancer, antimicrobial, antiviral, and anti-inflammatory

11. *Glycyrrhiza glabra*- Mulethi, Licorice



Stolon

Antiviral, cough and cold, bronchitis, asthma, anti-inflammatory, antiulcer

12. *Lepidium sativum*- Chandrashoor, Garden Cress



Leaves, seeds

Respiratory problem, stamina and immunity booster, antioxidant, reduces Blood pressure, cough and cold, build physical and mental strength

13. *Ocimum sanctum*- Tulsi, Holy Basil



Panchang

Antiviral, fever, cough, cold, bronchitis, asthma, skin diseases

14. *Piper betle*- Tambul, Belevine



Leaves

Antiparasitic, Antiseptic, antiviral, immunomodulator, cough, cold, bronchitis, asthma, pulmonary affections

15. *Piper longum*- Pippali, Long pepper



Fruit, roots

Respiratory tract related diseases – cough, cold, bronchitis, asthma, anti-inflammatory

16. *Piper nigrum*-Marich, Black pepper



Fruit

Cough, cold, bronchitis, asthma, skin disease.

17. *Tagetes erecta*- Genda, Tagetes



Seeds and leaves

Antimicrobial and antiviral, used in bronchitis and asthma

18. *Terminalia arjuna* – Arjun



Bark of tree

Cardiovascular diseases, fracture, inflammation and also used as Antimicrobial, antiviral, antitumor, antioxidant, antiallergic, anti HIV.

19. *Terminalia bellerica*- Bahera, Belleric Myrobalan



Bark, fruit, gum

Antimicrobial, respiratory infection, anthelmintic, antiulcer, throat problems, hypertension

20. *Tinospora cordifolia*- Amruta, Tinospora



Thick stem

Antimicrobial, antioxidant and immunomodulator

21. *Tylophora asthmatica*- Dum vel, *Tylophora*



Leaves

Expectorant, immunomodulator, respiratory infection, bronchitis and whopping cough

22. *Vitex negundo*- Nirgundi, *Vitex*



Leaves

Antibacterial, antifungal and antiseptic, used in respiratory problem

23. *Withania somnifera*- Ashwagandha, Indian ginseng



Root

Strength, energy, antis tress, concentration of mind, difficult breathing, immune system

24. *Zingiber offcinalis*- Adrak, Zinger



Rhizome

Antiinflammatory, Arthritis, colds, migraines, nausea

25. *Ephedra gerardiana* -Soml ata, *Ephedra*



Young branches

Allergy, Bronchial asthma, fever and flu

There are other Medicinal plants like *Cinnamomum cassia*, *Eucalyptus* spp., *Morus* spp., *Santalum album*, *Solanum nigrum* etc. can be used for respiratory tract diseases.

Taking all the above mentioned precautions and wise use of medicinal plants, we shall win over COVID-19 – pandemic 2020.

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