



Time-Honored Herbal Formulation for the Management of Sars-Cov-2 (Covid-19); an Enlightening Study

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Abstract

WHO recognizes that traditional, complementary and alternative medicine has many benefits and India has a long history of traditional medicine and practitioners that play an important role in providing care to populations. WHO encourages research partners to choose traditional medicine products which can be investigated for clinical effectiveness and welfare for Covid-19 patients. In addition to that, it remains to sustainance nations as they reconnoiter the role of traditional health practitioners in the prevention, control, and early detection of the virus as well as case transfer to health amenities. As exertions are undergoing to discover management and treatment for Covid-19, caution must be taken against misrepresentation, especially on social media, about the effectiveness of certain remedies. Many plants products are being projected without the minimum necessities and evidence of quality, safety and efficacy. The use of products to treat Covid-19, which have not been strongly investigated can put people in danger, giving a false sense of safety and distracting them from hand washing and physical distancing which are cardinal in Covid-19 prevention, and may also increase self-medication and the risk to patient safety. In view of the above information, it was thought worth to shortlist the guidelines and modality of treatment for Covid-19 pandemic disease by Ayush/Indian system of medicine in a nutshell for the benefit of manhood.

Keywords: Covid-19; WHO; Ayush; Traditional system of medicine

Introduction

A novel coronavirus, designated as 2019-nCoV, emerged in Wuhan, China, in the completion of 2019 calendar year. As of January 24, 2020, nearly 830 cases had been identified in nine countries viz China, Thailand, Japan, South Korea, Singapore, Vietnam, Taiwan, Nepal, and the United States of America.

Twenty-six mortalities ensued, mainly in patients who had serious fundamental co-morbidities. Many details of the appearance of this virus such as its origin and its ability to spread among humans remain mysterious, increasing number of cases appear resulted from human to human transmission. 2019-nCoV is the third coronavirus to emerge in the human population in the

past two decades in spite of the Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV) outbreak in 2002 and the Middle East Respiratory Syndrome Coronavirus (MERS-CoV) outbreak in 2012, an emergence that has put world population and medical organizations on highly prepared [1].

China immediately reports this issue by informing the World Health Organization (WHO) and sharing information with the international community after discovery of the causative agent SARS CoV-2. The WHO responded promptly by organizing diagnostics development; issuing direction on patient monitoring, specimen collection, and management; and providing up-to-date info on the outbreak of COVID-19 [2-3]. Several countries in the

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world are screening travellers from Wuhan for fever, aiming to detect 2019-nCoV cases before the virus banquets further.

Updates from China, Thailand, Korea, and Japan indicates the disease associated with 2019-nCoV appears to be relatively minor as related with SARS and MERS. Corona viruses constitute a large family of viruses that can infect animals including humans, according to world health organization (WHO). These viruses have been responsible for numerous outbreaks all over the globe, including the early detected severe acute respiratory syndrome

(SARS) pandemic of 2002-2003 and the Middle East respiratory syndrome (MERS) outbreak in South Korea in 2015. Most recently, a novel coronavirus (SARS-CoV-2, also known as Covid-19) elicited an outbreak in China in December 2019, flashing worldwide anxiety. While some corona viruses have caused shocking epidemics, others cause mild to moderate respiratory infections, like the common cold, fever, body pain and head ache etc., [4-6].

Dos and don'ts as outlined by Department of Naturopathy under the ministry of AYUSH

What to do	What to avoid
Drink plenty of warm water, lemon or fresh citrus juices with honey or jaggery.	Avoid cold drinks, preserved juices and aerated drinks and coffee.
Increase seasonings in your daily food (Jeera, Turmeric, Ajwain, Cinnamon, cloves, cardamom etc.).	Avoid refined sugars.
Prepare foods that are low on oils and fats (Dhalia, Idly, Kichdi).	Avoid confectionary and bakery products.
Ensure a balanced food regime. · Have protein rich (Dal Kichdi, boiled legumes) and fiber rich foods, millets, (vegetable soups).	Avoid sweets, chocolates, ice creams.
Obligate plenty of coloured fruits and vegetables. Wash them thoroughly; have boiled vegetables as curry or sambhar.	Avoid snacking on oily and junk foods.
Drink alkaline rich juices.	Reduce salt intake.
Include Zinc and Selenium rich foods: Oats spinach, beans, milk, cheese, pumpkin seeds, cashews etc.	Reduce the amount of trans- and omega-6 fatty acids in the diet (vegetable oils).
Drink at least one glass of Yogurt/day (probiotics) to improve gut flora.	Food in eateries.
	Smoking and alcohol.

Role of Naturopathy in Prevention during Covid-19 Pandemic

This guideline is to instruct yoga therapy, naturopathy treatment modalities, nutrition, diet and lifestyle approaches to improve immunity in our population. The imminent anxiety and stress of isolation due to Covid-19 disease and lockdown can down regulate immune responses and defences that can lead them to contract this infection and increase its severity. Though isolation, hygiene precautions and social distancing are important for preventing one being infected, anxiety and stress resulting from these also need to be taken care of Treatment protocols for people with Covid-19 should address both the physical and psychic needs of the patients and health service providers.

General Method for Naturopathy

Acupressure: Applying manual pressure with the thumb to certain points in the body is known to confer immunity and improve respiratory effort. Individuals should be taught to apply

intermittent pressure over acupressure points LI-4, LI11, SP6, TW 5, CV17, ST36(29).

Heliotherapy: Contact sun and air in the morning and evening hours is known to reduce stress and confer immunity by improving Vitamin D metabolism. This will give a change from confines of indoors and has been shown to be useful in managing flu symptoms. Following a healthy regimen is very important to boost one's immune response. The following lifestyle practices have evidence to prevent one from being infected with flu.

Exercise: Regular exercise of moderate-intensity is related with an abridged incidence of upper respiratory tract infection. The recommended means of aerobic exercise is walking, with an optimal frequency of three to five days a week and an optimal duration of 20 to 30 minutes of continuous activity.

Sleep: Snooze and the circadian system apply a regulatory influence on immune functions. Sleep deprivation can affect immune function in several ways that lead to enhanced susceptibility to the common cold and pneumonia with poor sleep efficiency [7].



Ayurvedic System of Medicine

In the rouse of Covid-19, an infectious disease caused by a newly discovered coronavirus, entire manhood across the globe is distress. Up to now, there is no medicine or therapy has established promising results in either stopping the spread or improving its diagnosis to prevent this infection. The greatest means of preventing Covid-19 infection are flouting the chain, improving an individual's body immunity, identifying the infection early and timely medical care.

The Ministry of Ayush, Govt. of India is dedicated to help the nation with the large resource of time-tested and proved traditional knowledge practice in this continent for the benefit of manhood. The Ministry has already circulated a series of measures to improve individual's natural defence system (immunity) in addition to the personal hygiene and social distancing. Ayurveda recognized epidemics/pandemics under the context of Janapadodhvamsa (conditions devastate the human settlements). Similarly, infectious diseases have been considered under Sankramika rogas. Contamination of air, water, environment and atmosphere is responsible for the spread of diseases on such a large scale resulting in Janapadodhvamsa. Causes of vitiation of air, water, climate and place along with their features have been enumerated in classics.

Improper disposal of waste, distribution of polluted water, air pollution, indulgence in unhealthy and unwholesome activities, failure of judgment and misunderstanding of situation etc. also result in judicious damage to the health of the society; ultimately leading to Janapadodhwamsa. Such conditions will manifest in symptoms like cough, breathlessness, fever etc. In Ayurveda, initial phases of the manifestation can be comparable to AgantujaVata Kaphaja Jwara. Uncontrolled conditions further vitiate other Doshas and other Rasa, Rakta, Mamsadi dushyas thus entering into Sannipataja condition. This document "Protocol for Ayurveda Practitioners" is a guideline for the use of registered Ayurveda Practitioners only. There are four sections covering the whole spectrum of COVID 19 infection management.

Ayurvedic Formulation for Covid-19

Rasayana for Children

- Indukanta Ghritam– 5-10 ml in two divided doses with warm milk.
- Aravindasavam– 5-15 ml in two divided doses with warm water after food.
- Balachaturbhadra Churna - 1-2 gm dose with honey two times a day.

Rasayana for pregnant and lactating women

- Phala Sarpis*: 10-12 g in two divided doses with warm water

- Kalyanaka Ghrita*: 10-12g in two divided doses with warm water
- Ashwagandha Rasayana* - 10-12 g twice daily with warm milk. Soubhagya Shunti Leha* - 10-12 g twice daily with warm milk in empty stomach
- Daily use of Milk with Ghee (cup of milk with a teaspoon of ghee)

*Disclaimer - The Rasayana drugs should be consumed after recovery from the fever and once Agni is stabilized during pregnancy.

Rasayana for geriatric subjects

- Chayvanaprasha Avaleha - 10 - 12 gm twice daily with warm milk.
- Ashwagandha Avaleha - 10 - 12 gm twice daily with warm milk.
- Brahma Rasayana - 10 - 12 gm twice daily with warm milk.
- Daily use of Milk with Ghee (cup of milk with a teaspoon of ghee).
- Shilajeet Rasayana [prepared by giving 7 times Bhavana of all the medicines - Triphala, Musta, Guduchi (Tinospora Cordifolia), Pippali etc.).
- Khadiradi Rasayana.
- Shatavari Siddha Ghrita.

The following Rasayana Yoga in Vardhamana Krama may also be advised with strict supervision of attending Physician:

- Vardhamana Pippali Rasayana [Kasa, Shwasa, Galagraha,
- Vishama Jwara
- VardhamanaGuduchi Rasayana
- Vardhamana Musta Rasayana
- Vardhamana Triphala Rasayana

Rasayana for immune-compromised subjects

- Samshamani Vati 500 mg tablet, 2 tablet BD after food
- Agastya Haritaki Rasayana* 10-12 g BD after food
- Chitraka Haritaki Rasayana* 10-12 g BD after food
- Chayavanaprashavaleha 10-12 g BD after food
- Bramha Rasayana 10-12 g BD after food
- Swarnamalinivasanta rasa 125 mg BD after food with water
- Guduchi Rasayana

Yoga System of Medicine

Yoga based life style module to improve immune flexibility in healthy peoples of all age groups.

Common Yoga Protocol (CYP)

Forty-Five-minute module: The general Yoga Protocol of IDY (International Day of Yoga) that was established by a team of



chief Yoga specialists / Yoga Leaders include safe practices to improve physical, mental, emotional and spiritual health of the peoples.

- Regular practice on empty stomach is recommended to improve immune resilience. Twenty and ten minute segments are acclaimed for children, adults, Young and the elderly peoples to be repetitive twice a day (morning and evening).
- Apart from CYP; Jananeti, Sutraneeti and Bhastrika Kriyas are suggested once or twice in a week and Yoga nidra for 20-30 minutes twice or thrice a week.

Yogic Diet

- Follow the commendations as per the medical advice on diet for your condition of diabetes, or heart ailment etc. and in addition these concepts from yoga that stimulates mental wellbeing. This comprises wholesome nutritious recently cooked traditional home-based cooked food with plenty of fresh vegetables and fruits with added traditional seasonings in reasonable quantities, consumed at regular timings. Abstinence from substance abuse including tobacco, alcohol and medications to reduce disease susceptibility in high-risk population. This recommendation based safe and simple yoga practices as mentioned above that promote health of the respiratory, circulatory and the immune systems.

Unani System of Medicine

- Unani Medicine distinguishes the influence of surroundings and ecological conditions on the state of health of human hoods. Apart from handling disease conditions, Unani Medicine places great prominence on the deterrence of ailment and promotion of prevailing health through principles of six essential factors (Asbab-e-Sitta Zarooriyah) of life.
- It places great importance on the preservation of a proper ecological balance and on keeping fresh air, water and food free from all possible pollution and pathogens. An eminent Unani physician Galen hypothesized that certain ailments triggered by pollutants tend to be carried by wind and hence, do spread faster; these enter human body through respiratory route As per Unani classical wisdom, refining immunity with immune boosters is one of the key tactics for deterrence of disease and maintenance of health.
- Therefore, an approach to improve immunity and provide symptomatic relief in upper respiratory tract infection is encouraged in these guidelines for qualified Unani Medicine practitioners.

Unani Formulation for Covid-19

- Habb-e-Surfa (125-250 mg)
- Khamira-e-Banafsha (10-20 gm) (Not suggested for diabetics)
- Laooq-e-Sapistan (10-20 gm) (Not suggested for diabetics)
- Sharbat-e-Sadr (20-40 ml) (Not suggested for diabetics)
- Habb-e-Bukhar (250-500 mg) • Habb-e-Mubarak (1-2 gm)
- Sharbat-e-Toot Siyah (20-40 ml) (Not suggested for diabetics)
- Laooq-e-Katan (10-20 gm) (Not suggested for diabetics)
- Habb-e-Hindi Zeeqi (125-250 mg)

Siddha System of Medicine

In the Siddha system of medical practice, Epidemics/Pandemics are declared as “Uzhi Noi” or “Kothari Noi”. In common, they are categorized under “KollaiNoikal”(Communicable Diseases) which are most usually occurred the time of “Ayana Santhi” months (Means end a month of Uthara Ayanam & Thatchana Ayanam), decrease on Adi and Margazhi month in Tamil Calendar. It is thought that in those days, the immunity of human beings will be little based on Mukkutram Theory.

Siddha Formulation for Covid-19

- Kaba Sura Kudineer - 60 ml two times a day after food.
 - NilaVembu Kudineer- 60 ml two times a day after food.
 - Visha Sura Kudineer- 60 ml two times a day after food.
 - Pavala Parpam -100 mg two times a day with Honey.
 - Velli parpam - 50 to 100 mg two times a day with Honey.
- (i) “Nilavembu kudineer is a polyherbal formulation with *A. paniculata* as the main constituent that reins all types of fever related to body pain. Other components include *Vetiveria zizanioides*, *V. zizanioides*, *Santalum album*, *T. cucumerina*, *C. rotundus*, *Zingiber officinale*, *Piper nigrum*, and *M. cerviana*. All these florae are utilized traditionally in the management of pyretic, “inflammation, arthralgia, stiffness in the joints, stomach ulcer, jaundice, and general debility conditions”. Nilavembu kudineer extensively controls fever through its managing consequences effects on temperature, inflammation control, body pain, and it also acts in a way to improve immunity. All the components in this formulation have the bioactive molecules that show excellent activity against dengue, chikungunya, herpes simplex virus (HSV), and influenza virus [8].
- (ii) Visha sura kudineer (VSK) is a polyherbal formulation from Siddha literature “Kaaviya Sura Nool”. The components were *Azadirachta indica*, *Indigofera tinctoria*, *Z. officinale*, *Hemidesmus indicus*, *Aristolochia bracteata*, *V. zizanioides*, *Glycyrrhiza glabra*, *E. cardamomum*, and *Santalum album*. Each of the component shows antiviral activity against wide range of



viruses. Aqueous leaf extract of *A. indica* offers antiviral activity against vaccinia virus, chikungunya measles virus, dengue virus type-2, and HSV type-1, it also has immune stimulant, anticomplement activity. *Indigofera tinctoria* shows an inhibitory effect of HIV-1 (III B) and HIV-2. *Zingiber officinale* has antiviral activity against the human lung syncytial virus in human respiratory tract cell lines". *Hemidesmus indicus* antiviral activity was studied against the Ranikhet virus. "A constituent of licorice root glycyrrhizic acid has antiviral activity by impeding the growth and cytopathic effect of numerous DNA and RNA viruses, such as vaccinia, HSV-1, Newcastle disease, and vesicular stomatitis viruses". It also shows antiviral activity against flaviviruses, such as dengue, Japanese encephalitis, Yellow fever, mammalian tick-borne encephalitis, influenza, and hepatitis A, B, C viruses.³⁴ Sandalwood oil, the essential oil of *Santalum album* L., indicated antiviral activity against HSV-1 and HSV-2 [9-10].

Homeopathic System of Medicine

Homeopathy, as a healing method, is based on the Hippocratic Similia Similibus Curentur therapeutic law. The physician trusts on the completeness of symptoms exposed during the entire evolution of the contamination, and prescribes an ultra - high diluted successor solution product which has been proven to heal alike conditions. This is a great benefit in this mastery while Covid-19 disease is in rapid development, because the diagnosis of the indicated ultra-high diluted successor solution product is based on separate symptoms (if these are very characteristic) or on the totality of symptoms, and not in the pathology. Homeopathy therefore endorses issuing of public notice for Genus epidemics identified by the nominated authorities for immunity enhancement and physicians may suggest the same to the people and as per the Advisory issued by Ministry of Ayush. Second method is to provide homoeopathic symptomatic alleviation to affected persons. Homoeopathic medicines are also useful in the management of communicable ailments like Influenza like Illness, dengue, acute encephalitis syndrome. Several studies are also circulated which shows the immune modulatory potential of homoeopathic medicines in preclinical studies. These medicines can be recommended in a combined manner or individual depending on the cruelty on a case to case [11-12].

Formulation of Homoeopathy System for Covid-19

The medications according to different stages of ailment are given below:

Mild Disease (Symptomatic Amelioration and Mitigation Approach): Medicines like *Aconite napellus*, *Arsenicum album*, *Bryonia alba*, *Gelsemium sempervirens*, *Rhus tox*. *Eupatorium*

perfoliatum, *Ipecacacunha*, *Belladonna*, *Camphora*, may be used depending upon the symptoms similarities.

Severe disease but not in critical condition: It is defined by following criteria (Dyspnoea, respiratory frequency 30/min, blood oxygen saturation (SpO₂) 93%, PaO₂/FiO₂ ratio < 300, and/or lung infiltrates > 50% within 24 to 48 hours)/ Recommended medications are as adjuvant to Standard Management strategies in the hospital setting only with the approval of authorities and inclination of the patient/guardian. The prescription is to be given only by institutionally qualified practitioner. Medicines like Phosphorus, Chelidonium, *Veratrum Viride*, Iodum, Camphora, *Cinchona officinalis*, Lycopodium, Ars. iod., Antim ars., Stannum met, Carbo veg., can be prescribed on symptomatic indication.

Conclusion

Covid-19 outbreak and the usage of medicinal plants as herbal ingredients in the formulations for medicine is highly recommended for the current era of the world. Currently, Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2, formerly known as 2019-nCoV, has fast spread across China and round the world. Thus the current study helps us to understand the hidden potential of traditional system of medicines especially those practiced in India.

Declaration of Interest

The author has no relevant affiliations or financial involvement with a financial interest in or financial with the subject matter or materials discussed in the manuscript.

Conflicts of Interest

There is no conflict of interest.

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