

AYURVEDIC PREVENTIVE MEASURES AND POSSIBLE TREATMENT FOR COVID-19

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ABSTRACT

Ayurveda is the science of life with aim to protect the health of healthy individuals and to cure the diseases of sufferers. Ayurvedic approaches can give fruitful results in prevention and management of COVID19. WHO has declared the outbreak of COVID 19 to be a public health emergency of international concern on 30th January 2020. Ministry of AYUSH, many Ayurveda institutes, eminent *Vaidyas* give guidelines to combat COVID 19 in preventive and health promotive way. Ayurveda has mentioned *Dincharya*, *Rutucharya*, *Sadvrutta Palana*, *Ash-tanga Yoga* to prevent any disease. We in this paper tried to show benefits of these Ayurvedic principles in pandemic disease like COVID-19. COVID-19 disease can be correlated with *Vatkapha Pradhana Sannipataja Jwara*. Many Ayurvedic drugs mainly *Ashwagandha*, *Yashtimadhu*, *Guduchi* are tried for clinical trials for treatment of COVID-19. Clinical trials of Ayurvedic drugs on quarantine COVID-19 positive patients shows good results with Ayurvedic stand-alone treatment. We in this paper tried to summarize all the possible Ayurvedic approaches in preventive and curative way, clinical trials through Ayurvedic add on and stand-alone treatments. We lastly concluded with positive note that Ayurveda can be beacon of light to fight COVID-19 Pandemic.

Keywords: COVID-19, *Vatkapholbana Sannipataja Jwara*, Corona virus, SARS-COV-2, Pandemic disease

INTRODUCTION

COVID-19 is an infectious disease caused by SARS COV-2 OR Novel Corona Virus. Outbreak of COVID-19 began in Wuhan China in December 2019 which is now pandemic disease affecting many countries globally. The most common symptoms of COVID-19 are Fever, Dry cough, Tiredness. Some fewer common symptoms are sore throat, nasal congestion, aches, pains, diarrhea etc. These symptoms are mild earlier and gradually show severe symptoms mostly in comorbid patients, elderly people, pregnant ladies, children. Some people are with COVID-19 positive results but are asymptomatic.¹ As cause of COVID-19 is SARS-COV 2 which is extrinsic factor and when it enters the body intrinsic factor get vitiated if we have equilibrium of *Tridosha* then immunity will get strengthened so our focus should be on prophylactic, immune boosting research and development. Some Ayurvedic *Vaidyas* believed that we should tried COVID-19 treatment according to *Ayurveda* principles and not as an antiviral treatment and focus should be on stand-alone *Ayurveda* treatment instead of adding on treatment². *Ayurveda* deals with every human being as an individual so we have to know many stages like *Dushya*, *Dosha*, digestive power etc. before treatment. Most cases of COVID-19 are mild and not life threatening .80% of COVID-19 positive patients have no symptoms. Novel corona virus may spread as a seasonal, endemic pathogen.³ Pandemic, epidemic, infectious disease, contagious diseases and infectious disease are mentioned in *Ayurvedic Samhitas* as *Janpadodhwansa Vyadhi*⁴ and *Maraka*,⁵ *Sansrgaja Vyadhi*, ⁶*Sankramaka* or *Op-sargika Vyadhi*⁷ respectively. *Bhel Samhita* also described *Janmara* as a pandemic disease.

Aim and Objective: Aim and objective of this study is as follows

- 1) To focus on Ayurvedic preventive measures as a solution to boost immunity which helps in prevention of any disease including COVID-19.
- 2) To provide the details of research in the field of *Ayurveda* to combat COVID-19.
- 3) To discuss how the *Ayurvedic Preventive measures* and *Research drugs* like *Ashwagandha*

Guduchi, *Yashtimadhu*, *Pipali*, *Chawanprasha* can help in Prevention and Management of COVID-19.

Materials and Methods: Materials for this Article is collected mainly from classical literature and research updates. Details of Clinical Trials and Researches are collected from online Newspaper, press conferences and various Webinars conducted by many prestigious Ayurvedic institutes.

Ayurvedic Perspective of COVID-19: Many eminent *Vaidyas* correlate COVID-19 with *Vatkaprapradhana Sannipataja Jwara* like *Vaidya Venimadhav Shastri*⁸, DR. V.K. Agnihotri⁹. Symptoms of *Vat-kaphpradhan Sannipataj Jwara* can be co-related with COVID-19.

Causes of pandemic diseases according to Ayurveda:- According to *Charakacharya Vayu* (Air), *Jala* (Water), *Desha* (location), *Kala* (season) are the common factors which if vitiated leading to the simultaneous of diseases having same set of common symptoms leading to the destruction of many countries¹⁰. According to *Sushrutacharya* the inappropriate seasons, wrong deeds, curse of saints, person, animal, demons (like viruses, bacteria), disrespect to nature and vitiated air like substances produce disease worldwide and epidemics manifested¹¹.

Modes of transmission of Pandemic diseases according to Ayurveda¹²:- *Prasangat* (physically close contact), *Gatra Samsparshat* (physical contact with diseased patients), *Nishwasat* (inhalation of infected respiratory droplets), *Sahbhajanat* (sharing food), *Sahshayya* (sleeping together), *Sahaasana* (sitting close), *Vastra dharana* (Sharing clothes of infected person), *Malyaanulepna*t (Sharing *Pushpa* or jewelry of infected person).

Possible Etiopathogenesis of COVID-19 according to Ayurveda: -

Dosha- Predominantly *Kapha* and *Vata* affecting *Pitta*.

Dushya-Rasa Dhatu and other dhatus in later stage.

Srotas affected- *Pranvaha Srotas* later all *Srotas*,

Srotodushti Prakara-Sanga (obstruction), *Vimarggama*, *Atipravrutti*

Agni-Vishmangni,
Udbhav Sthana-Urdhwajatrugat,
Vyakta Sthana-Urdhwajatrugat kapha sthanas.
Vyadhi Swabhava- Ashukari

Ayurveda and immunity (Vyadhikshamatwa)¹³:- Any pandemic diseases including COVID-19 can be managed by boosting immunity which provides optimum defense mechanism against pathogens. Ayurveda describes immunity as *Vyadhikshamatwa* means ability of the body to fight against the disease and to prevent emergence of any disease¹⁴. Ayurveda describes *Rasayana* which have many important roles like to increase longevity including, immunity boosting.

Ayurvedic health promotive and disease preventive strategies:

Ayurveda has mentioned disease preventive and health promotive strategies to maintain health which are useful in present Pandemic period also.

Dincharya (Daily regime), *Nishacharya* (Night regime), *Rutucharya* (Seasonal regime), *Sadvrutta*, *Ash-tanga Yoga* can be included in these strategies.

Dincharya described in detail in all main texts of Ayurvedas like *Charak Samhita*¹⁵, *Sushrut Samhita*¹⁶, *Ashtang Sangraha*.¹⁷ *Dincharya* means ideal daily schedule if followed properly have beneficial physiological effects on our mind and body¹⁸. Following activities of *Dincharya* and *Nishacharya* can help to prevent and combat COVID-19 and should follow strictly.

1. *Ushajalpana*: Drink 640 ml lukewarm water before sunrise and regular use of lukewarm water.
2. *Aachmana*: Cleansing of face and eyes with fresh water daily. *Trifala Quatha* can be used once a week.
3. *Dantdhawana*: Brushing of teeth twice a day in morning and after meal with *Nimba* or *Khadir kashtha*.
4. *Jinhanirlekhana* (tongue scraping or cleaning).
5. *Anjana*: Application of colyrium in eyes acts as mechanical barrier between pathogens and eyes.
6. *Pratimarsha Nasya* (oil nasal drops): In this process 2 drops of *Goghruta*, *Til Taila*, *Anutaila* instill in each nostril or local application of half

drop of above *Sneha* with little finger at inner side of nose daily.

7. *Gandusha* (Gargles): Lukewarm water containing *Tulsi*, *Adrak* etc. hold in mouth until watering of eyes and nose started then spit it followed by warm water gargles.
8. *Kawala* (Gargles/oil pulling): It includes holding of oil, *Trifala quatha*, *Haridra* etc. water in mouth, rinse or swish for 2-3 minutes then spit it.
9. *Dhumpana*: Inhalation of medicated fume by nose and mouth and exhalation with mouth by using *Haridra vati* or *Dhumpan Dravyas*.
10. *Snana* (Bath): Lukewarm water with Neem leaves should be used for bath.
11. *Aahara* (Diet): Daily *Aahara* should be *Shad-rasatmaka* but less in quantity and easy to digest and should be according to season. During COVID-19 pandemic one should eat *Tikta* (bitter), *Katu* (Pungent) *Raspradhana*, fresh cooked, easy to digest diet.

Rutucharya: Ayurveda has mentioned diet and regimes according to season like in *Shitkala* the strength of individual will be maximum, described changes in every *Rutu* and advised diet and regime should be according to seasons.¹⁹ *Tridoshas* shows *Chaya*, *Prakopa* etc. according to seasons so one can prevent disease if we follow *Rutucharya* by preventing propagation of *Dosha Avastha*²⁰. One can undergo *Samshodhan Karma* according to seasons like *Vaman Karma* in *Vasant Rutu* for vitiated *Kapha Dosha* and so on to prevent emergence of disorders.²¹ *Rutucharya* also advises to intake of *Haritaki* with different *Anupana*.²²

Sadvrutta (Good moral practices)²³ Ayurveda mentioned code of conduct of social and personal behavior. One should be *Satyawadi* (speak truth), should have *Daya* (compassion) for others, should do *Devata Pujana* (should have faith on religion). *Acharya Charaka* also mentioned *Aachar Rasayana* which is like rejuvenation for mind means good moral practices like respect your elders, be happy in each and every situation, should not be over ambitious, and should be free from drug addiction.²⁴

Ashtanga Yoga (Eightfold Yoga practices) ²⁵ Among Ashtanga Yoga following practices help in health maintenance

1) *Yama* (code of social conduct)

2) *Niyama* (code of personal conduct)

3) *Asana*: *Asanas* like *Ardhakatichakrasana*, *Vakrasana*, *Ardhachandrasana* (Half-moon pose), *Ardhamatsendrasana*, *Matsendrasana*, *Setubandhasana*, *Ushtrasana*, *Dhanuarsana*, *Surya Namaskara* should be included in daily practices.

4) *Pranayama* (Breathing practices): One should Practices *Pranayama* and *Yogic breathing*. *Nadishodhan Pranayama*, *Bhastrika*, *Kapalbhati*, *Bhramari* should practice daily.

Dhyana (meditation): *Dhyana* helps to maintain mental and spiritual health.

Ayurvedic Chikitsa Sutra to prevent COVID 19: - Ayurvedic *Chikitsa Sutras* which can help in Management of COVID-19 is as follows

1) ***Nidana Parivarjanam*** ²⁶ means to avoid the cause of disease. The cause of COVID-19 is Novel corona virus and mode of transmission is droplet infection so if we avoid contact with COVID-19 patients we can prevent disease or if we have to contact with such patients we should maintain proper social distance of at least 2 meter, hand wash for 20 seconds, use of medicated mask, avoid to touch, nose, eyes and mouth and use of mask by COVID-19 patients can help to stop the spread of the disease.

2) ***Yuktivpashraya Chikitsa***-

Dincharya (Daily regime), *Nishacharya* (Night regime), *Rutucharya* (Seasonal regime) can be included in these types of *Chikitsa*.

3) ***Satwavajaya Chikitsa***: It includes *Sadvrutta palana*, *Ashtanga Yoga*, *Achar Rasayana* which are described as health promotive strategies.

4) ***Daiavyapashraya Chikitsa***: It includes *Mantra-japa*, *Yadnya*, *Prarthana* etc. which boost spiritual and mental Health.

5) ***Dravya Chikitsa***: This should be according to *Roga awastha* and *Rogi bala*. Mainly, treatment should be *Aampachaka*, *Rogi Bala vruddhikara*. *Sannipataj Jwara* and *upadravas* should be treated accordingly using *Bhasma* preparations like *Samirpannag Rasa*,

Mallasindur Rasa. *Shadangpaniy*²⁷ is mentioned in *Jwara Chikitsa* and very useful in *Aampachana* can be given in COVID-19 patients

Use of systematic immune modulator like *Pipli*, *Krushna Marich*, *Vacha* for respiratory system. *Giloy*, *Ashwagandha*, *Chaywanprasha* as general immunity booster can be added along with *Jwaraghna* (*Mahasudarshangan Vati*, *Anand bhairav Rasa* etc.), *Shwasahar* (*Shwaskutar Rasa*, *Bharangyadi Kashay*) *Kasahar* (*Kanakasava*, *Dashmularishtha*) *Pratishyayhara Chikitsa* (*Sitopaladi churna*, *Haridra khanda*) should be given.

6) ***Apunrbhav Chikitsa***: To prevent relapse of disease *Rasayana Chikitsa* like *Vasavleha*, *Bruhat Haridra Khanda*, *Chawanprasaha* should be advised.

Ministry of AYUSH Guidelines for preventive health measures and boosting immunity with special reference to respiratory health ²⁷: It includes general measures which includes drinking warm water, 30 minutes *Yogasna*, *Pranayama*, *Dhyana*.

use of spices like *Jeera*, *Laahsun*, *Dhaniya* in diet. Ayurvedic immunity promoting measures which includes daily intake of *Chyavanprasha* 10 gm.(1tsf) and AYUSH Kadha – Which includes herbal tea or decoction (*kadha*) made from *Tulsi* (basil leaves) 4 part, *Dalchini* (Cinnammon stem bark 2 part), *Kalimirch* (black peeper fruit)1 part, *Shunthi* (dry ginger rhizome) 2 part and *Munnakka* (raisin). Add jaggery (natural sugar) and or fresh lemon juice to your taste, if needed and milk with *Haridra Churna* twice a day. Nasal application and Oil pulling therapy also advised daily. For Dry cough and Sore throat *Pudina* leaves steam inhalation and *Lawang Churna* with honey advised.

National Research Developmental Corporation (NRDC) prepared compendium of Indian Technologies for combating COVID-19 ²⁸ which includes herbal drug like *Fifatrol* of *Aimil pharma*.

List of clinical trials and results in India using Ayurvedic treatment in COVID-19

1) Ayurvedic trial ²⁹for COVID-19 positive but asymptomatic patients conducted on 24th April 2020 on 213 patients in COVID care center Ahmadabad for 14 days and out of them 203 patients

turn out to be negative after 14 days. Rest 11 patients have not completed their 7 days treatment.

- 2) Prophylactic immunity boosting AYUSH treatment works in quarantine period.³⁰ Among COVID-19 Positive 6210 patients 3585 patients given with Ayurvedic treatment and 2625 had given Homeopathic treatment from 10th April to 17th April. All patients tested COVID-19 negative except 11 positive patients. These 11 patients take treatment for only 3 days as their quarantine period comes to an end.
- 3) Clinical Research Studies on Ayurvedic interventional prophylactic and as an add on to standard care to COVID-19 By Ministry of AYUSH³¹.
- 4) Population based Interventional Studies on Impact of AYUSH based Prophylactic interventions for COVID 19 in high risk population.
- 5) AYUSH Sanjivani application-based study for impact assessment of acceptance and usage of AYUSH advisories and its role in prevention of COVID 19.
- 6) Director from C. B. Ayurved Charak Sansthan³² mentioned that *Nagradi Quatha* and *Giloyghanvati* are given to the COVID 19 positive patients in their center and shows significant results in some Patients and trials are going on.
- 7) Clinical trials of Ayurvedic medicine Zinziver H tablet starts on 15 COVID-19 patients in Mysore Medical College.³³

DISCUSSION

COVID - 19 a Pandemic disease which has low mortality rate but disturbs the health status of world. Ayurveda can play important role in preventive and in possible treatment part.

Probable mode of action of Ayurvedic preventive Strategies in COVID-19: -

As we discussed in detail the *Dincharya*, *Nishacharya* we can say that this daily regime has an important role in prevention and management of disease. *Dantdhavana*, *Jinhanirlekhana* maintains oral Hygiene. *Nasya* prevents the diseases of eyes, nose and ear and sticky nature of *Sneha* protects nose from dust particles to enter in nasal cavity. *Gandusha* and *Kawala* deeply

cleanses mouth, ear, nose and throat. *Sneha Gandusha* prevents dryness of throat and mouth and improve circulation of oral cavity. *Dhumpana* triggers the normal physiological function of respiratory system. *Abhyanga* enhances overall blood circulation. *Aahara* plays important role in maintaining healthy state. It not only prevents disease but also help in treatment of many diseases and helps to boost immunity. Proper sleep energizes body for next day activity as it increases immunity and reduces stress. So, following these regimes properly helps in maintenance of health and hygiene and boosting immunity. *Rutucharya* which is one among the preventive strategies of Ayurveda have main role in health management. It prevents any seasonal disorders and help to maintain health in all season. It guides to eliminate *Doshas* before emergence of disease by *Shodhan karmas*.

Sadvrutta play important role in spread of contagious diseases³⁴ It explains proper sneezing, spitting, right behavioral ways which prevent spread of contagious diseases including COVID-19. Among *Ashtanga Yoga Yama* plays important role in maintaining social health which is necessary for prevention of diseases. In present situation like pandemic of COVID-19 if we follow *Yama* like speak the truth and not hide the history of travelling in outbreak area, we can prevent the spread of the disease. *Niyama* includes personal hygiene which is first step in prevention of disease. It focuses on to follow spiritual practices which reduce the stress and prevents psychosomatic diseases. *Asnas* not only prevent diseases but also cures the diseases. *Asana* increase the lung capacity of the individual and so help to increase immune system and stamina. *Pranayama* like *Anuloma Viloma*, *Nadishodhana pranayama* relieves stress. Yogic breathing practices, *Bhastrika*, *Kapalbhati* helps in deep breathing, increases the lung capacity. *Bhramari Pranayama* keeps the sinus healthy and infection free by keeping air flow between sinus and nasal cavity³⁵ *Pranayama* increases vital capacity and helps in immunity boosting by energizing every cell of the body. Meditation increases positive energy of the body and keeps the mind calm and decreases demand of oxygen to the

body .35 minutes meditation reduces metabolic rate by 32% and helps to boost immune system.

Possible Mode of action of Ayurvedic drugs: *Ashwagandha, Guduchi, Yashtimadhu, Pipali, Chawanprasha* have proven immune boosting effect. These drugs act as immunomodulator. *Lawanga, Cinamon, Ginger, Tulsi, Turmeric* which are advised daily in *Ayurveda* have high oxygen radical absorbance capacity means high antioxidant capacity which can reduce oxidative stress and maintain health.³⁶*Ashwagandha* lower down and controls stress and cortisol production and inflammation of the body. It can be used for making vaccine to fight against COVID-19.³⁷*Ashwagandha Rasayana* can play important role in prophylaxis of COVID-19³⁸ as it offers multitarget effect in inflammatory conditions by restoring immune Homeostasis. All these treatments have to go through clinical trials to show results against COVID-19. These drugs boost the immune system and if virus enters the body it will not propagate into rest of *Kriyakala* like *Prakopa, Prasara* etc. and we can arrest the disease in *Chayavastha* means before its emergence.

CONCLUSION

Any disease can be prevented, or severity of such diseases can be reduced by enhancing immunity and COVID-19 is also one among them. Immunity can be enhanced by strict implementation of *Dinacharya, Nishacharya, Rutucharya, Sadvrutta Palana, Ashtang Yoga* which have four-fold benefits like disease preventive, health promotive, disease curative, health restorative benefits. COVID 19 can be well managed by Ayurvedic *Chikitsa Sutr*s. Clinical Trials with Ayurvedic medicines will show statistically significant results as these drugs used are proven to be immunity enhancer and best in breaking etiopathogenesis of respiratory disorders.

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