

## AN APPRAISAL ON AYURVEDA PERSPECTIVES OF PREVENTION AND CONTROL OF GLOBAL PANDEMIC COVID – 19

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### ABSTRACT

The whole world is facing unprecedented loss by the Covid-19 pandemic caused by Severe Acute Respiratory Syndrome Corona virus 2 (SARS-CoV-2). Despite of efforts being taken by health sectors all over the world there is no potential cure and the treatment is therefore largely supportive and empirical. Government of India is taking all necessary steps to ensure the good health to everyone. Most of the infected people have a mild-to-moderate clinical course, and the elderly, the immunocompromised and those with other comorbid conditions land into severe acute respiratory syndrome that has high mortality. According to recent data, there are about 2,69,102 active Covid 19 cases in Maharashtra. As the disease is highly infectious in nature with high intensity of global spread, prevention from infection is the best possible way to avoid the burden on health system. The Indian traditional medical science Ayurveda has tremendous things to offer in control and prevention of infective diseases. It has immense potential in strengthening of immunity and maintaining health through close attention on balancing one's body and mind, right thinking, diet, lifestyle and the use of Ayurveda herbs and therapies among which Rasayana therapy plays a vital role.

**KEYWORDS:** Covid-19, Pandemic, Ayurveda, Immunity, lifestyle, Rasayana.

### INTRODUCTION

Corona virus infection is caused by corona virus of coronaviridae family. It is single stranded virus with a crown like appearance.<sup>[1]</sup> The corona virus was first discovered in 1965 and became familiar after the pneumonia outbreak in 2002 in china. The first patient of corona virus disease of 2019 (COVID-19) was found in the Wuhan city, china. It was declared as global health emergency on 30 January 2020 by World Health Organization (WHO).<sup>[2]</sup> The clinical features of the disease include fever, shortness of breath, sore throat, fatigue, bodyache, runny nose.<sup>[3]</sup> From Ayurvedic point of view it can be considered as *vātakapha* dominant *sannipātaj jwara* of *āgantū* origin with *pittānubandha*.<sup>[4]</sup> The concept of *janapadodhwansa* described in Charak Samhita refers to the situation where there is wide spread damage to environment as well as life forms. *Janapadodhwansa* literally means destruction or annihilation of communities or settlements by vitiation of *Vayu* (air), *Jal* (water), *Desh* (earth) and *Kala* (season).<sup>[5]</sup>

The Government of India has taken a step towards this

pandemic as 'Interdisciplinary AYUSH Research and Development Task Force' with the objectives of reducing the suffering and deaths associated with COVID-19 in India.<sup>[6,7]</sup> AYUSH ministry has given a list of certain immunity enhancer drugs in collaboration with Council of Scientific and Industrial Research (CSIR) with technical support from the Indian Council of Medical Research (ICMR) which contains *Ashwagandha*, *Yashtimadhu*, *Guduchi*, *Pippali* and *Ayush 64*, *Ayush Kwatha*, golden milk etc.<sup>[8]</sup>

**Ayurveda principals of immunomodulation-** Ayurveda measures such as following proper *Dincharaya*, *Rutucharya*, *Sadvritta*, *Achara Rasayana*, *Panchakarma*, *Shamana Chikitsa* & *Rasayana*, *Yogapachara Dhoopana Karma* etc are crucial in immunity build up in human body.<sup>[9,10]</sup> Hence, it is feasible to make good use of these traditional practices could be beneficial both in terms of psychological quality of life, and in terms of moderating the risk of infection.

### Rasayana Therapy

Rejuvenation and revitalization mechanism of the Rasayana drugs not only enhance the immune system but increase the longevity of life as well. Rasayana acts on the three levels of the bio-system i.e. at the level of Agni by promoting digestion and metabolism, at the level of Srotas by promoting microcirculation & tissue perfusion, at the level of Rasa itself by acting as direct nutrient hence, these Rasayana Dravyas has been used as the first line of defence for *Janapadodhwansa* (Epidemic Condition). Rasayana may be used in two ways, first as a prophylactic medicine and second as a preventive measure in healthy people.<sup>[11]</sup> Drugs like *guduchi*, *haridra* and *amalaki* are good immunity boosters.<sup>[12,13]</sup> Clinical research proved that Ashwagandha (*Withania somnifera*) as rasayana drug has great effectiveness in immunity boosting.<sup>[14,15]</sup> *Chyavanprash* is one of the well known Rasayana of ayurveda and it is highly recommended in this covid-19 pandemic.

**Achar Rasayana**-Acharya charaka explains in his treatise, the rejuvenation effect of good quality conduct which is to be followed on guidelines given in Ayurveda scriptures. The measures include be truthful, devoid of uneven anger, not indulge in violence, alcohol and unethical sex. One must be serene and stable in the mind and polite in his speech, maintain cleanliness, regularly practice charity and pay respect and worship the teachers, parents, elders, poor, etc.<sup>[16]</sup> Acharya rasayana also brings proper control over sense organs which in turn prevent the psychosomatic disorders.<sup>[17]</sup> By following these codes of moral conduct one can enhance his social status and prevent majority of disorders affecting the body as well as the mind.

**Nasya** –Nasya karma is ayurvedic technique in which the medicine is administered through nose either in the form of ghee, oil, powder, liquid or smoke. It is particularly useful in the treatment of disorders of head but indirectly it has effect on the whole body by improving the functioning of the endocrine glands and nervous system.

**Kawal and Gandusha**- mouth gargles is an ayurvedic remedy practiced since ancient India. Kwal and Gandusha is observed to bring improvement in oral hygiene as well prevent entry of viruses and bacterias through mouth.<sup>[18]</sup> In *Gandusha* the liquid is filled in maximum capacity inside the mouth and held for specific time without gargling then it is spit out. In *Kavala* enough amount of liquid is filled in the mouth so that one can gargle and rinse the mouth for specific time and later it is spit out. It prevents diseases of oral cavity and throat, extra salivation, nausea, anorexia, rhinitis, etc.<sup>[19]</sup>

### Dhoopan Vidhi (Fumigation Therapy)

Dhoopan or dhoompana vidhi is a procedure in which fumes or smoke produced from defined drug formulations are inhaled/exposed by patients for the therapeutic relief or externally as a cleanser to the

environment. Ayurveda recommends fumigation as a method of sterilization with economic, readily available, safe and ecofriendly aromatic substances which not only provide physical, and mental health but also purify and sanitize environment to kill microbes. It is a therapeutic procedure for various human diseases, including microbial infections, vector-borne, airborne viruses and psychological dhoomapana<sup>[20]</sup> Ashtanga Hrudaya mentioned Aparajita dhooma in *Jwara Chikitsa* for treatment for fevers especially by Agantu factors that are external causes like germs, viruses, psychiatric factors, poisoning, injury etc. For prevention of entry of covid-19 through nasal or oral routes one can use turmeric and neem powder 1 teaspoon and mix it with a teaspoon of ghee. Burn it on hot pan and expose yourself to the fumes coming out of it. In the traditional method the above are purified appropriately and then powdered and made into a wick with ghee or oil and then dhoomapana is done. We can perform herbal smoking easily by using few ingredients available at home like turmeric and along with cinnamon, cardamom and clove.

### Abhyanga (Oil Massage)

Application of medicated oil over the body surface in a systematic manner with specialized techniques for a specific time is called Abhyanga.<sup>[21]</sup> Abhyanga combines massage techniques that offer the body the deepest relaxation, the oils detoxify and decongest the body more specifically the skin and the muscles. This treatment helps to reduce anxiety and strengthen the immune system.<sup>[22]</sup> Abhyanga / OIL massage should be done daily as it delays ageing, relieves exertion and excess of vata (aches and pains), it improves vision, nourishes body tissues,prolongs age, induces good sleep and improves skin tone and complexion.<sup>[23]</sup>

### Yoga and Pranayam

Yoga practice enhances the strength of expiratory as well as inspiratory muscles in healthy individuals thereby improving pulmonary functions and preventing respiratory diseases in future. Yoga practice helps in building strong immune system and relieve stress.<sup>[24]</sup> Suryanamaskar (12 poses) is advised on a daily basis as it cleanses body, improves lung and airway functions and helps drain secretions. Pranayama helps in bringing the harmony between sympathetic and parasympathetic nervous system. Pranayama reduces muscle tone and corrects breathing patterns thereby causing broncho-dilation. Pranayamas like *Nadi-shudhhi*, *Kapalbhati*, *Bhastrika*, *Bhramari* helps in strengthening the respiratory system.<sup>[25]</sup>

*Nadishodhan* pranayama has immediate effects on respiratory, cardiovascular and nervous system.<sup>[26]</sup> *Asanas* like *Bhujangasana* (cobra pose), *Ushtrasana* (camel pose), *Hastapadasana* (hand to foot pose) increase movement of ribcage and spine thereby improving the functions of lungs. Yogic practices enhance muscular strength and body flexibility, promote and improve respiratory and cardiovascular function, reduce stress,

anxiety, depression or other mental illness and enhance overall well-being and quality of life.<sup>[27]</sup> Yoga practice combining physical posture, mindfulness, and meditation can be a holistic preventive and rehabilitative measure for elderly in case of covid-19 pandemic.<sup>[28]</sup>

### Meditation

According to the survey conducted during the Covid-19 pandemic the overall mental health is affected globally. Due to several crisis and lethargic lifestyle the major population of the world is landing in depression and anxiety.<sup>[29]</sup> During the process of meditation, accumulated stresses are removed, energy is increased, and health is positively affected overall. The meditation process takes the mind from the outer realm of the superficial and materialistic world to the inner realm of the deeper self. The 15 minute of meditation has the effect of single day vacation on a person which can certainly help to reduce depression in covid-19 pandemic.<sup>[30]</sup>

### Dinacharya

Dinacharya is known as the ideal life style which explains regular regimen one should follow in a day to day life to maintain health. Dinacharya plays a vital role in prevention of various disorders which are resultant of improper lifestyle and bad conduct. These are the duties systematically and scientifically explained to establish balance in one's body constitution. It starts from waking up in the morning at Brahami muhurtha (early morning before sunrise), Ushapana (drinking water stored in copper or silver pot), Mala-Mutra Visarjana (Defecation), Dantadavana (brushing), Kavala Gandusha (gargling) etc. Starting from the benefits of trimming the nails, taking bath, using a footwear, using umbrella to protect from strong sunrays, every do's and don't's are described in detail in the context of Dinacharya (Daily regimen)<sup>[31]</sup> Dinacharya also includes precautionary health regimen which have activities than can prevent the entry of virus into the body. It includes Vamana Anjana, Nasya, Dhooma, kavala gandusha, Karna poorana Abhyanga, Dhoopana vidhi etc.

### Ritucharya

Ritu means the season. According to indian calendar there are six seasons called *Shishir*, *Vasanta*, *Grishma*, *Varsha*, *Sharad* and *Hemant*. These seasons are characterized by different features which has great impact on the body as well as the environment. Ayurveda has depicted various rules and regimens (Charya), regarding diet and behavior according to each season to acclimatize seasonal variations at the same time maintaining the homeostasis of the body. The basic principle of Ayurvedic system of medicine is prevention of disorders which can be achieved by the change in diet and regimen in response to change in climate. As human being is also part of the same ecology, the body is greatly influenced by external environment. Many of the exogenous and endogenous rhythm have specific phase relationship with each other; which means that they

interact and synchronize each other. If body is unable to adopt itself to stressors due to changes in specific traits of seasons, it may lead to one or other kinds of disorders. The stress of coping with energetically demanding conditions can also indirectly cause illness and death by compromising immune function. People are unaware or ignorant of the seasonal regimen which includes consumption of suitable food, practice of suitable activities, wearing appropriate garments and other stuffs according to the changing season. This may lead to imbalance of lifestyle and derangement of homeostasis which results in various lifestyle disorders like obesity, diabetes, hypertension, cancer, etc.<sup>[32]</sup>

### Nidra (Sleep)

Ayurveda treatises mentioned the importance of *nidra* in maintenance of health. It is one of the trayopastambhas (three great subsidiary pillars) on which a person's health is firmly balanced. Sound sleep at night is a natural and nourishing phenomenon, so it is also called *bhutadhatri* (nourishes all living beings) which leads to happiness and longevity of human life while sleep deprivation or excessive sleep leads to unhappiness and disease conditions.<sup>[33]</sup> Cup of warm milk with teaspoon of honey in it, can practice yognidra, foot or scalp massage or aromatherapy.

### Sadvritta

'Sad' means good and 'Vritta' means conduct. Ayurvedic texts has explained the importance of good conduct in prevention of diseases and improvement of immunity. Acharya Vagbhata defines *sadvritta* as, compassion for all creatures, sacrificing, control of mind in physical, verbal and mental actions with aid of his wisdom and having empathy that is considering others emotions as of our own and acting accordingly. Thus following the rules of good conduct (*sadvritta*) help to attain long life, wealth, health, reputation and eternal life. According to Charak Samhita, following of *Sadvritta* has two objectives- maintenance of positive health and control over sense organs. Following these ethical, social, moral, mental, etc. conducts will help to prevent the transmission of communicable infections like Covid-19.<sup>[34]</sup>

### Adharniya-Dharniya Vega

Adharniya veg are the urges which shouldn't be suppressed. It includes the urge of flatus, urine, faeces, sneezing, thirst, hunger, sleep, cough, breathing, yawning, tears, vomiting and semen.

Dharniya veg are the urges which one should suppress. It includes greed, grief, fear, anger, egoism, shamelessness, jealousy, excessive affliction and desire to acquire someone else's wealth. Clinical evaluation shows that suppression of natural urges (*adharniya veg*) i.e *vegvidharana* leads to psychosomatic and stress disorders. Suppression of natural urges *vegvidharana* including voluntary retention of urine has been considered to be harmful in Ayurveda and is likely to induce vitiation in doshas causing several kinds of

diseases.

Vegavidharana creates stressful situations which is known in the pathogenesis of stress diseases. Hence this suppression of urges should be avoided.<sup>[35]</sup>

## CONCLUSION

Covid 19 pandemic has made a remarkable change in everyone's life and importance of good health is supremely highlighted. Ayurveda science is based on maintenance of the health as well as treatment of the diseased person. To endure all the crisis and maintain high human spirit in this pandemic one has to consider mental, physical and emotional well-being. It is wise to take advantage of all the human sciences which are made for the betterment of our life. Hence, one can inculcate an Ayurveda lifestyle by all the above mentioned means for prophylactic purpose against the virus as well as for maintaining the health and peace in mankind. Holistic Ayurveda treatment protocols should be promoted on all ground to tackle this pandemic.

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