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DETAILED VIEW ON THE RECENT PANDEMIC OF COVID-19 THROUGH THE LENS OF AYURVEDA

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ABSTRACT

At present, Covid-19 is a significant concern due to its high mortality and morbidity rates. Since there is currently no cure available, it is crucial for individuals to prioritize basic care and boost their immunity. One possible approach for preventing such diseases is through Ayurveda, which offers various therapies, medicines, and lifestyle measures to enhance immunity and manage illnesses. Ayurveda, supported by AYUSH, provides fundamental methods to incorporate into one's life. This article highlights the importance of Ayurveda in treating airborne diseases like Covid-19. Ayurveda emphasizes the body's response to treatment and the role of chakra healing in addressing Covid-19. Susruta identifies chakras within our bodies, which serve as a means of communication with different diseases through elements such as air, water, earth, and fire. Ayurveda is the oldest healing system that facilitates the connection between the body, mind, and soul, bringing individuals closer to nature and promoting inner calmness in various situations. India has a history of dealing with epidemics, and Ayurveda has played a prominent role in healthcare during those times. Ayurveda has recorded valuable experiences and insights into epidemics, their causes, severity factors, complications, management, and prevention, often referred to as Janapadodhwamsa.

Keywords: Covid-19, Ayurveda, Janapadodhwamsa, Dincharya, Ritucharya, Nija

Introduction

The world is currently terrified due to the Covid-19 pandemic caused by the severe acute respiratory syndrome coronavirus (SARS-CoV-2). Ayurveda refers to this as Janapadodwasma, which signifies the destruction of states or countries. The Covid-19 infection can be correlated with Vata Kaphaja Sannipataja Jwara, a severe fever described in classical Ayurvedic texts that involves complications and affects one's overall well-being. Therefore, it is important to understand the concept of Covid-19 and its management principles based on Ayurvedic ethics. The main objective of the management principles is to correct the contaminated air (Vikruta Vayu) and the affected environment (Desha), as well as to improve immunity and lifestyle to prevent the disease. Ayurveda suggests various herbal or herbo-mineral combinations for the management of Covid-19 patients based on the stage and severity of the disease. Follow-up is essential for recovery and to prevent recurrence. Ayurveda's role has been particularly beneficial in asymptomatic, mild, and moderate stages of the disease. Further clinical studies should be conducted to gather evidence on the safety and efficacy of these drugs for Covid-19, leading to wider acceptance and implementation of Ayurvedic principles like Ahara (nutrition), Vidhis (regimens), Dinacharya (daily routine), and Sadvritta (ethical practices) in national health policies to improve disease resistance. The concept of Janapadodhwamsa, as described in Charaka Samhita, helps us better understand and correlate with pandemics and epidemics. Janapadodhwamsa is classified into two

groups based on their causes: those occurring due to natural causes and those occurring due to man-made causes. The novel coronavirus, SARS-CoV-2, was identified in late 2019 and has since become a global pandemic, affecting millions of people worldwide. Ayurveda, as one of the oldest medical traditions, has a crucial role to play in understanding the cause, pathogenesis, and solution to this pandemic. Ayurveda has accumulated valuable knowledge and experiences in dealing with epidemics, recording their causes, severity factors, complications, management, and prevention, which can provide valuable insights for the current Covid-19 pandemic. Ayurveda being one of the oldest surviving Medical Tradition, has a key role to play in this crucial situation. Epidemics have not been new to India. Ayurveda being in the fore front of health care of those times, has recorded its valuable experiences of epidemics & termed them as Janapadodhwamsa or Maraka. It has vividly described their mechanism of Causation (Nidana), factors affecting severity and actions complicating illnesses, their management and prevention.¹⁻⁶

Causation of Pandemics

According to Ayurveda, both Charaka Samhita and Sushruta Samhita describe a commonly observed process of how epidemics occur. In the context of COVID-19, this concept can be understood as follows: "Adharma" refers to activities that contribute to the destruction of the essential principles of life or nature, including air, water, and land. Adharma is considered as any action that leads to the destruction of air, water, land, and so on. Some examples

of these activities include pollution from the power sector (thermal), industrial pollution, pollution related to military activities, pollution from automobiles and aviation, pollution of water bodies, sand mining from river beds, unregulated damming, contamination of ocean beds, rapid urbanization, extensive construction with non-eco-friendly materials, overexploitation and destruction of mountains, forests, and ecosystems, destruction of animal and plant habitats, and the use of non-biodegradable toxic materials like plastics and pesticides.^{7,8}

These activities disrupt the balance of nature and give rise to abnormal air currents, cyclones, floods, non-seasonal rains, and extreme weather conditions. The destruction of Amazon rainforests or Australian forests due to wildfires, as well as the occurrence of extreme weather and non-seasonal rains in Europe, Australia, India, and other places, can be seen as warning signs.

The disturbance of air currents, seasons, and the ecology of land and water simultaneously leads to the imbalance of doshas (cytokines) in humans, making them more susceptible to the same illnesses. Additionally, it affects the quality of food-producing plants, leading to reduced nutrition and undernourishment. When these factors combine with the causes of sluggish metabolism (agni mandya), it results in infectious diseases like Covid-19 and potentially more in the future if corrective actions are not taken.⁹ The predominant involvement of the lungs in Covid-19 can be explained by the commonalities between the factors that disrupt the pranavaha srotas (respiratory channels) and vata (one of the doshas in Ayurveda). These common factors include weight loss (kshaya),

constipation (vega sandharan), consumption of a low-fat high-fiber diet (rukshata), and excessive inappropriate exercise (vyayamat kshudhitasya), which are increasingly prevalent in today's lifestyle.

Ayurvedic perspective of Covid-19

Covid-19 is taken as a Janapadodhwamskara or contagious disease; and following the model of Patho Physiology (Samprapti) explained by Acharya Madhava in Masurika (Smallpox), should be taken as a nija jwara (Endogenous Fever).

Covid-19 can be taken as Nija although it was known that there was "some factor" that transmits Fever, Cough, Tuberculosis, Skin disease or Conjunctivitis from person to person, the Acharyas of Ayurveda choose to focus more on the host factor (doshas) (NIJA) rather than the agent (virus, bacteria etc.) It is extremely important to note that in all the above diseases quoted by acharya sushruta and acharya madhava as being contagious and transmissible like Kushta, jwara, sosha, netraabhisyaanda etc., there is no mention whatsoever of agantuja variety of kushta, sosha, netraabhisyaanda.

In reality the difference lies in the fundamental difference that defines the approach to fevers between modern medicine and ayurveda. Modern medicine has always looked for a cause from 'outside', while ayurveda has always looked 'inwards' and feels it is Doshas or Nija hetu that cause all these fevers. Ayurveda believes that even if there is a virus or bacteria, until there is no vitiation of doshas primarily in the body, none can infect the human system in a way that it manifests as disease. Hence, we believe that although modern medicine may feel

that Covid is caused by a virus, from a classical ayurvedic perspective while it is completely acceptable; but it should be taken as secondary, and primary importance should be given to host factors or NIJA doshas or increased mass susceptibility only, in the manifestation of the disease.⁹⁻¹⁰

Clinical features of Covid-19 ¹¹⁻¹³

Covid has demonstrated various patterns according to different authorities. These patterns are discussed and identified in Ayurveda as follows:

1. Mild illness such as rhinitis, sore throat, and bronchitis is associated with Vata Jwara, Vata Kapha Jwara, and occasionally Kapha Jwara.

2. Pneumonia is correlated with the same factors as mild illness, but in an aggravated state due to increased disease strength and decreased individual resistance. It corresponds to Vata Jwara, Vata Kapha Jwara, and Kapha Jwara.

3. Severe pneumonia, characterized by a respiratory rate higher than 24 breaths per minute and oxygen saturation below 90% on room air, corresponds to a condition known as Vatolbana Sannipata or VataKapholbana Sannipata. It mostly occurs in a balanced state (Samavastha) and is caused by strong or multiple underlying factors, resulting in significant imbalance of the doshas (biological humors).

4. Acute Respiratory Distress Syndrome (ARDS), defined by severe respiratory distress primarily corresponds to Vatolbana Sannipata (sometimes Vata Kapholbana Sannipata). It involves the predominance of dyspnea due to Saama Rasa (stagnant plasma), Rakta Dhatu (blood tissue), and increased adhesiveness (Picchila Guna) of Ama

(undigested metabolic waste), leading to blockage (Srotorodha) of micro and macro blood vessels.

5. Sepsis, characterized by fever, rapid breathing, low blood pressure, and altered mental status, also corresponds to the Sannipata Avastha (balanced state) of the aforementioned types of fever. It exhibits symptoms such as thirst (Pipaasa), dry mouth (Mukha Sosha), hypotension, rapid breathing (Swasa), and altered mental status (Pralapa, Tandra), representing an internal imbalance (Antarvega Avastha) of the fever.

The various features described can be correlated as follows:

a. Altered mental status corresponds to drowsiness (Tandra), confusion (Moha), and delirium (Pralapa).

b. Respiratory distress corresponds to cough (Kaasa), difficulty breathing (Swasa), and hoarseness (Kantha Kujana).

c. Hypotension corresponds to dizziness (Bhrama) and excessive thirst (Trushna).

d. Coagulopathy corresponds to bleeding (Sthivanam Rakta Pittasya).

e. Clotting corresponds to the appearance of dark-colored and reddish patches (Kothanam syava Arunanam Mandalanam cha Darshanam).

f. Gastrointestinal dysfunction corresponds to heaviness in the abdomen (Gurutva Udarasya Cha).

Any of the above features, along with the presence of Ama (undigested metabolic waste), lead to a state of imbalance called Saama Avastha in most fevers. This imbalance arises due to reduced digestive fire (Agni) in the upper gastrointestinal tract (Amasaya) and liver. Partially digested Rasa Dhatu (plasma) produces an intermediate product called

Ama, which exhibits heavy (Guru), foul-smelling (Visra), and sticky (Ati Picchila) qualities, leading to blockage of the body's channels (Sroto rodha). This Ama can be considered the primary source of inflammatory cytokines, nourishment for viruses and bacteria, and a trigger for autoimmune reactions in chronic states.

Samprapti Ghatakas

- Doshas - Vata, Pitta
- Dushya - Asthi (with or without Mamsa)
- Prakruti - In a Vata Pradhana (With or without association of Kapha)
- Roga Marga – Abhyantara
- Adhishtana - Phupasa (Lungs) is the main organ for the manifestation of disease.

Treatment:

Aushada Abhyantara Aushadi :-¹⁴⁻¹⁹

Acharya Charaka in his treatise, has explained that Tikta Rasa Aushadi should be given during Jwara Kala. (Bitter taste dominant medications). Accordingly, considering the Prakriti of the individual, Roga and Rogi Bala, Kala and Adhishtana of Roga the treatment of different type of Jwara is to be decided. Since the Covid is Vatapittaja Vyadhi, following Ayurveda drugs may prove useful.

- a) Kirata - Swertia chirata
- b) Amrita - Tinospora cordifolia
- c) Katu Rohini - Picrorhiza kurroa
- d) Musta
- e) Vasa - Adathoda vasica
- f) Tulsi - Ocimum tenuiflorum
- g) Amalaki - Phyllanthus emblica
- h) Turmeric - Curcuma longa
- i) Kali Mirch (Black pepper)
- j) Shunthi/ Dried Ginger - Zingiber officinale Roscoe
- k) Cinnamon - Cinnamomum verum
- l) Laung / Clove - Syzygium aromaticum
- m) Garlic - Allium sativum
- n) Munakka

o) Usage of Ginger, Turmeric, Long pepper, Clove, Garlic, Cumin, Coriander, Cinnamon, Basil leaves (Tulsi) in excess either along with food or alone.

p) Ushna Jalapana (Frequent intake of hot water) can be added with Mint leaves and Coriander leaves, Fennel, Ajwain.

Aushada Bhaya-Urdhwagata Shodana :-¹⁹⁻²⁵

a) Nasya - Medicated Nasal drops can be instilled into both the nostrils every day and night.

b) Kavala Graham - This keeps the oral cavity clean, strengthens the gums, and clears the mucus plugs if adhered in the channel.

c) Gandusha - Gargling which helps to clear the sinuses and keeps the channel patent.

d) Swedana - Sudation can be done by frequent inhalation of steam with addition of bronchodilating drugs like Vasa (Adathoda vasica), Bharangi (Clerodendrum serratum) depending on Roga and Rogi Bala. This procedure helps to clear the airways and aids smooth respiration.

e) Dhupana - Fumigation can be done by using drugs like Guggulu (Commiphora mukul), Nimba (Azadirachta indica), Vacha (Acorus calamus).

Dinacharya as preventive measure for Covid-19²⁰⁻²⁶

If one follows Dinacharya regularly, then it brings beneficial effects on proper functioning of the body thereby maintaining a state of equilibrium of Tridosha, Sapta-Dhatu (tissues) and Tri-Mala. It also improves the power of digestion. Helps in attainment of a pleasant state of mind, soul and sense organs. It maintains a good health which

is required to achieve a long life. Waking up in Brahmamuhurta, Dantadhavana (~tooth brushing), Anjana (~collyrium in eyes), Vyayama (~exercise), Yoga Exercise and meditation, daily practice of Yogasana, Pranayama for at least 30 minutes maintains a balanced metabolism, increases flexibility, increased muscle strength and tone.

Important Yoga and Pranayama - Ujjayi breathing where in you take a long breath first filling up your stomach and then the chest. While one inhale, the stomach is the first to go in followed by the chest. This facilitates maximum oxygen retention by the body. Breathing retention is another type of Pranayam that helps strengthen lung capacity. o Inhale a deep breath and hold for as long as you can, this ensures greater oxygen supply and absorption.

Graha-Dhupana: Dhupana - (fumigation) of the house every evening with antimicrobials such as Neem leaf, Sarshapa (*Brassica campestris* L), Loban (gum bezamin/benzoin - *Styrax bezoin* Dry and), Karpura (*Cinnamomum camphora* (L) J.Presl.), Ghee etc. Also usage of Aparajita Dhooma Choorna as per availability can be adopted.

Here are some paraphrased descriptions of the important drugs mentioned in Ayurveda as Rasayana, known for their immune-boosting properties:

1. Yashtimadhu: Yashtimadhu possesses properties such as anti-inflammatory, antipyretic, and antioxidant effects.
2. Guduchi/Amrita: Guduchi/Amrita exhibits antioxidant and phagocytic activities, as well as antipyretic and immunomodulatory properties.
3. Ashwagandha: Ashwagandha has well-established activities including anti-inflammatory, antidepressant,

antioxidant, and immunomodulatory effects.

4. Amalaki: Amalaki acts against carcinogenesis and demonstrates cytoprotective, anti-inflammatory, antimicrobial, antioxidant, and immunomodulatory activities.

5. Vibhitaki: Vibhitaki possesses properties such as antispasmodic, antihistaminic, antibacterial, antiviral, and antioxidant effects.

6. Haritaki: Haritaki, mentioned as a Rasayana and recommended for Swasa and Kasa, has proven antibacterial, antispasmodic, antioxidant, and immunomodulatory activities.

7. Pippali: Pippali exhibits anti-inflammatory, antispasmodic, and immunomodulatory properties.

8. Chayavanprash: Chayavanprash is a natural immunity enhancer known for its ability to boost respiratory system functions. It is scientifically proven to have immune modulatory functions.

Discussion

Having a strong immune system is crucial for protecting humans from microbial infections to some extent. Therefore, it is important to recognize the significance of maintaining a healthy lifestyle, adopting good dietary habits, and engaging in regular exercise in order to enhance immunity. Immunity can be obtained through the use of certain herbs and medicines, following a specific regimen, and practicing proper Rasayana techniques. Immunity refers to the body's ability to defend against infectious diseases, safeguarding it from harmful microorganisms and malignant ailments. When the body comes into contact with disease-causing factors, it attempts to generate the illness, but simultaneously, the body also strives to resist it. This ability

of the body to counteract the development of a disease or combat an existing one is known as immunity. It has been observed that some individuals do not develop a disease even after encountering the relevant disease-causing factor, while others may fall victim to the same microorganism or disease in the same environment or climate. Therefore, when the body's resistance power is sufficiently strong, it can eradicate the causes. Immunity, which can be inherent or acquired, plays a significant role in acquiring this resistance power. An imbalance of the three doshas (Vata, Pitta, and Kapha) and its subsequent impact on the body's components (Dushyas, Dhatus, and Malas) is responsible for diseases. Thus, maintaining balanced doshas, balanced Agni (digestive fire), optimal functioning of all bodily tissues (Dhatus), and normal functioning of all channels (Strotasas) contributes to the body's immunity. It is believed that a deficiency of Ojus (vitality) in the body leads to wasting, decay, degeneration, and destruction. Bala (strength) is also synonymous with Ojus. A rational approach to food consumption and a healthy lifestyle are primary factors for immunomodulation. Following daily and seasonal regimens, along with the use of specific medicines such as Rasayanas, can trigger immunomodulation.²⁶⁻³⁰

Conclusion

According to Ayurveda, diseases are believed to result from a combination of Dosha (vata, pitta, and kapha) and Dhatus, highlighting the body's rapid response to regular pathogenic influences. Ayurveda has always been effective in boosting immunity and strengthening the body's defenses

against microorganisms when it becomes infected. In Ayurveda, Covid-19 is referred to as Janapadodhwamsaneeya Vikara. However, the holistic Ayurvedic system of medicine offers numerous time-tested medicines such as Sudarshanam tablet and Sanshamani Vati, as well as Panchakarma procedures and techniques like dietary and lifestyle modifications to enhance immunomodulation. The ancient Acharyas of Ayurveda have already described various medications and therapies to boost immunity, including Panchakarma procedures, Rasayana, Satmya, Yuktikrita Bala, Ojas, Yoga, Pranayama, and more. By adopting these Ayurvedic concepts, one can achieve strong immunity and better cope with infectious diseases, including the current Covid-19 pandemic.

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