

JANAPADODHWAMSA - AN AYURVEDIC AND MODERN OVERVIEW IN PRESENT ERATARUN KUMAR KUSHWAHA^{1*}, SUMAN YADAV¹, ASHUTOSH KUMAR YADAV²¹Department of Shalya Tantra, Government Ayurvedic P.G. College and Hospital, Varanasi, Uttar Pradesh, India. ²Department of Rachna Sharir, Government Ayurvedic P.G College & Hospital, Varanasi, Uttar Pradesh, India. Email: Kushwahatarun1112@gmail.com

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ABSTRACT

Janapadodhwamsa is one among the unique concept described in Ayurveda treatises which literally means destruction of people or community. There are four factors that have been described which are common and essential for every living being, that is, *Vayu* (air), *Jala* (water), *Desha* (land), and *Kaala* (season). The principles which we explained vide *Janapadodhwamsa* in Ayurveda synchronized with this COVID-19 pandemic. The aim of the study was to learn about *Janapadodhwamsa* in Ayurveda and Modern aspect in the present era through various literature searches. Literary study of *Janapadodhwamsa* thoroughly including classical treatises such as *Charaka Samhita* and *Sushruta Samhita* of Ayurveda was done. Information is collected through the WHO reports; PubMed and Scopus indexed journals. Estimated Modern terminology for the *Ayurvedic* terms was used according to CCIM, India. Immunomodulation should be central in medical field to combat several infective, chronic, autoimmune, and anti-viral or any epidemic disease. Some concepts of epidemiology can be compared with *Ayurvedic* concepts. Due to the absence of availability of the management of these viral diseases, a mass destruction happening hence to save the life of humans the above acknowledged management has important role in immunity improvement and provides strength to combat the disease or *Janapadodhwamsa* (epidemic condition). Ayurveda and modern management combination can improve the health of an individual as well as society keeping positive mind and a healthy body are the sources of contentment in the pandemic. Thus, adopting a holistic outlook, good lifestyle with appropriately balanced diet, *Yoga*, *Pranayam*, meditation, along with *Achara Rasayana*, and *Sadvritta* can led a stress-free living can prove to be an functioning management for *Janapadodhwamsa*.

Keywords: Ayurveda, *Janapadodhwamsa*, COVID-19, *Maraka*, *Janamaar*, *Rasayana*, *Panchkarma*, *Pragyaparadha*, *Vaadchikitsa*, *Dhupana karma*.© 2021 The Authors. Published by Innovare Academic Sciences Pvt Ltd. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>) DOI: <http://dx.doi.org/10.22159/ijas.2021v9i6.40524>. Journal homepage: <https://innovareacademics.in/journals/index.php/ijas>**INTRODUCTION**

Natural calamities including epidemics and pandemic diseases are defined in *Ayurveda* under the heading *Janapadodhwamsa*. An epidemic disease is the rapid spread of infectious diseases to a large number of peoples during in a given population within a short period of time, usually 2 weeks or less. Diseases having similar signs and symptoms affecting various individuals of town, state and country at a time and can abolish the whole province is named as *Janapadodhwamsa*. According to *Charaka samhitha* factors involved in *Janapadodhwamsa* which, in turn, lead to vitiation of environmental influences are *Vayu* (air), *Jala* (water), *Desha* (land), and *Kaala* (season). War and other man-made calamities are also the causative factors for *Janapadodhwamsa*. According to *Chakrapani*, there are two kinds of causes for diseases, *Sadharana* (typical) and *Asadharana* (atypical). Atypical is subjective cause that varies from human to human such as food and habits which vitiates *Dosha*. Typical is common to various people such as *Vayu*, *Jala*, *Desha*, and *Kaala*. Diseases due to such common causes are called *Janapadodhwamsa*. These four factors that have been described in *Ayurveda* treatises which are common and essential for every living being, that is, *Vayu*, *Jala*, *Desha*, and *Kaala* [1]. Any abnormal alteration in these four factors can significantly influence individual, or community or environment or all of them together. This variation in the four factors may be understood with an instance considering environmental imbalance and disease outbreak emerged due to ongoing industrialization, pollution, etc. Description of such conditions affecting wide population has already been seen in *Ayurvedic* treatises dating thousands of years back. *Acharya Charaka* termed this condition as *Janapadodhwamsa*. The vitiating above-said four common factors are the cause for *Janapadodhwamsa*. Although many scholars considered *Janapadodhwamsa* as an endemic or epidemic or pandemic disease condition, whereas in *Charaka Samhita* the causes for vitiation of such factors has also been described in a dedicated chapter focused on

Janapadodhwamsa. Among four factors *Kaala* is considered as ultimate among other three factors, since *Kaala Dushti* may lead to vitiation of other three factors. *Kaala* has direct relation with *Ritu*. If *Ritucharya* is followed properly, we can tackle *Kaala Dushti* effectively [2].

A pandemic is an epidemic of disease which spread across a large number and instance numerous continents in world. A novel coronavirus named "COVID-19" on February 11, 2020, by the World Health Organization (WHO). In "COVID-19" word "CO" stands for "corona," "VI" stands for Virus "D" stands for Disease, and "19" stands for 2019. "CORONA" the Term "Coronam" means "Crown" or halo, due to their Crown-like projection on the surfaces corona viruses got their name. The virus resembles a crown when viewed under an electron microscope [3].

COVID-19 has been declared as pandemic by the WHO, has rasping affect globally. Coronavirus disease, that is, COVID-19 is caused by novel coronavirus, it is also known as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It is zoonotic origin disease which comes from civet cats, camels, and bats. The most common symptoms of coronavirus disease are fever, cough, and shortness of breath [4]. If a community dissimilar in cases of its constitution and other attributes of an individuals, but due to the infected uncommon causative factors the people of the community may be infected in large numbers. That is what happened in the infection of COVID-19. This biological evolved virus causes the uncommon factors mentioned above and further responsible for the mass destruction. Now this situation refers to *Janapadodhwamsa* [5].

ORIGIN OF COVID

The disease was first recognized in December 31, 2019, in Hubei, Wuhan, China. The first case of novel coronavirus founded outside of china confirmed on January 13, 2020, in Thailand. Then first case

of novel coronavirus spotted in India on January 30, 2020, in Kerala, Thrissur Dist. The WHO Director Dr. Tedros Adhanom Ghebreyesus declared that the disease caused by new coronavirus was "COVID-19." The new virus very contagious and has quickly spread globally. The WHO declared "COVID-19" as "GLOBAL PANDEMIC" on March 11, 2020. According to the WHO, more than 216 countries areas or territories are suffering from COVID-19 out-break in the world till June 11, 2020. The first confirmed death was in Wuhan on January 09, 2020. The first death outside of china occurred on February 1, 2020, in the Philippines and the first death outside Asia was in France on February 14, 2020 [6].

PERSISTENCE OF CORONAVIRUSES (CO-V) ON SURFACES

- On plastic=5 days
- On paper=4-5 days
- On glass=4 days
- On wood=4 days
- On steel=48 h
- On surgical gloves=8 h
- On Aluminum=2-8 h [7].

MODE OF TRANSMISSION

The virus spread primarily through small droplets from coughing, sneezing, and talking from infected person. The droplets are usually not airborne; however, those standing in close proximity may inhale and become infected. People may also become infected by touching or contaminated surface and then touching face. The transmission may also occur through aerosols that can stay suspended in the air for longer periods of time in closed surface. It is most contagious during first 3 days after the onset of symptoms; although spread is possible before symptoms appear and people who are asymptomatic [6,8].

INCUBATION PERIOD

{The time between infection and symptoms of onset}
The incubation period of corona virus (COVID-19) is 2-14 days.

SYMPTOMS

The main sign and symptoms of this disease are as follows:

- Fever
- Dry cough
- Difficulty in breathing/shortness of breath.

LESS COMMON SIGN AND SYMPTOMS ARE INCLUDED

- Fatigue
- Headache
- Irritation in throat region
- Muscle pain
- Diarrhea
- Vomiting
- Loss of sense of smell
- Loss of taste.

Among those who develop symptoms approximately one in five may become more seriously ill and have difficulty breathing. Emergency symptoms include difficulty breathing persistent chest pain or pressure, sudden confusion, difficulty waking, and bluish face or lips, immediate medical attention is advised if these symptoms are present. Most people infected with COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people and those people who are underlying with medical problems like -

- Cardiovascular disease
- Diabetes
- Cancer
- Chronic respiratory diseases.

These diseases are more likely to develop serious illness.

Table 1: Characteristics of Dushit (polluted) Vayu (air), Udaka(water), Desha (land) and Kaala(season)

S. No.	Factor	Vikrita Lakshana (altered characteristics)
1	Vayu (air)	<ol style="list-style-type: none"> 1. <i>Vishama</i> (absence of features in accordance with season) 2. <i>Atistimita</i> (excessive calm) 3. <i>Atichalam</i> (excessive violent) 4. <i>Atiparusha</i> (excessive rough) 5. <i>Atishita</i> (extreme cold) 6. <i>Atyushna</i> (extreme hot) 7. <i>Atiruksha</i> (excessive dry) 8. <i>Atyabhishyandi</i> (excessive humid) 9. <i>Atibhairavaravam</i> (wind blowing with excessive sound) 10. <i>Atipratihataparaspargati</i> (colliding in nature) 11. <i>Atikundalinam</i> (excessively cyclonic) 12. <i>Asatmaygandhavash pasiktapanshudhumophatamiti</i> (wind with unwholesome smell, mixed with gases, sand, ashes and smoke)
2	Jala (water)	<ol style="list-style-type: none"> 1. <i>Vikrutgandhavarnarasasparsha</i> (Abnormal smell, colour, taste and touch) 2. <i>Kledabahula</i> (excessive stickiness) 3. <i>Jalcharavihangam</i> (water bodies is devoid of aquatic animals like fishes etc.) 4. <i>Upkshinamjaleshaya</i> (reduced water levels in lakes and ponds) 5. <i>Apritikaram</i> (unpleasant appearance or taste) 6. <i>Uppgatagunam</i> (devoid of natural qualities)
3	Desha (land)	<ol style="list-style-type: none"> 1. <i>Vikrutgandhavarnarasasparsha</i> (Abnormal smell, colour, taste and touch) 2. <i>Kledabahula</i> (excessive stickiness) 3. Abundance of serpents, wild animals, mosquitos, locusts, flies, rats, owls, vulture and jackals 4. <i>Pratanaadibahulam</i> (excessive orchard with grass, weeds and creepers) 5. <i>Atishukshanastashasyam</i> (extremely dried land with destroyed crops) 6. <i>Dhumrapawanam</i> (abundance of smoke in air) 7. Suffering of different animals and birds due to bewilderment and agony. 8. Land where religion, truth, modesty, manners, conducts and other qualities of the inhabitants are absent. 9. <i>Kshubhitdirnjalashayam</i> (disturbed and turbulent water bodies) 10. <i>Pratataulkapatanighatabhumikampa</i> (Frequent occurrence of meteorites, thunderbolts, and earthquakes). 11. <i>Atibhayavaramroopam</i> (hearing of fearful sounds) 12. Sun, moon and stars appears as they are covered with coppery, reddish-brown, and whitish colored clouds. 13. People living on the land appears as confused, bewildered, agitated, sorrowful, frightened, etc.
4	Kaala	Features opposite, excessive, or less to the features of normal course of season

RELATION BETWEEN COVID-19 AND JANAPADODHWAMSA

Co-V are a large family of virus. This virus causes illness in animals and humans. Animals that get infected with these viruses spread this infection into living organisms. In humans several Co-V can

cause respiratory infection. This respiratory infection can be simple illness like common cold as well as severe illness such as Middle East Respiratory Syndrome and SARS-CoV-2. Co-V are zoonotic in origin, meaning they are transmitted between animals and people. Novel coronavirus is constrained disease; therefore, we have only available option is preventive measures. Structurally, it is positive strand RNA virus emerged from bat virus as having the genetic similarity to bat Co-V. SARS-CoV-2 has four structural proteins: Spike (S), Envelop (E), Membrane (M), and Nucleocapsid (N) in which the first three are viral envelop and (N) is RNA genome. According to the WHO, this infection has only the mode of transmission, that is, droplet infection. Naturally, it originates from sneezing, talking, and breathing which includes different type of cells, that is, epithelial cells, cells of immune system and it contain mucus, saliva as well as some infectious agents such as bacteria, viruses, and fungi and hence, this virus is potent to cause the mass and spread over 202 countries till date [4].

LITERARY REVIEW

Janpad means group of people or community and *Dhwamsa* means demolition. Therefore, the literal meaning of the term *Janapadodhwamsa* may be considered as a condition with massive demolition or annihilation of people or community. In *Janapadodhwamsa*, persons having distinct *Prakriti* (constitution), *Aahara* (diet), *Deha* (body), *Bala* (strength), *Satmya* (suitableness), *Mana* (mind), and *Vaya* (age) may be affected by one particular disease simultaneously. In *Janapadodhwamsa*, four factors, namely, *Vayu* (air), *Jala* (water), *Desha* (land), and *Kaala* (time period/season) are primarily altered. The sequences of these four factors are important in progressive order because of their essentiality. Among these, *Kaala* being the most powerful of them is cause of disaster. Distinct terminology has been used for *Janapadodhwamsa* by different *Acharyas*.

Acharya Sushruta has termed this condition as *Maraka* (destroying condition) and emphasised the utilisation of *Aushadh* (herbs) and *Jala* (water) which are not affected or collected before the onset of *Maraka* [9].

Acharya Bhela used the term *Janamaar* for this condition (destroying condition) and emphasized the Fasting of a person due to outbreak of medical epidemics (*Mitt bhaji*), should remain *Dhritiman*. With the use of mantras and medicines one should remain engaged in the saluation of *bramhins*, *Janamaar* by doing this can be avoided [10].

Acharya Kashyapa also talk about the disease which occurs in *Janpad vishesha* [11].

FEATURES OF JANAPADODHWAMSA

In *Janapadodhwamsa*, mainly the said four factors are affected and results in mass annihilation. *Acharya Charaka* has described that *Vikrita lakshanas* (altered characteristics) of the said factors are as follows [12].

SHUSRUTA SAMHITA NIDANA STHANA CHAPTER - 5

Acharya Shusruta (The Father of Surgery) has explained *Aupasargik Rogas*. *Aupasargika diseases* are communicable diseases that spread through direct contact or contaminated objects of patient.

By physical contact, expired air, eating with others by sharing plates, sharing bed, clothes and cosmetics spread the communicable diseases from one person to another person. Here according to *Acharya Dalhana Prasangaat* means excessively and frequently, if these activities are performed [13].

GENERAL TREATMENT OF JANAPADODHWAMSA

One does not suffer from these diseases even if all four vitiated factors are at work if people are assured with proper medicaments which are already collected and processed. Use of *Panchakarma*, proper

administration of *Rasayana* therapies is advised in the effective management of *Janapadodhwamsa* (communicable diseases). The herbs used for the medicine preparation should be collected prior to the onset on diseases in that particular area.

Along with this *Satyabhuta* (Truthfulness), *Bhoot Daya* (compassion for living beings), *Dana* (charity), *Bali* (scarifices), *Devatarchana* (prayer to the gods), *SadvrittaAnuvritti* (good deeds), protection of the self by Mantra, etc., are very effective, *Shivanaamupsevnam* (devotion towards God), “*Sevanambrahmcharyasyatathevbramchaarinaam*” service to those observing *brahmacharya*(celibacy) and following it, *SamkathaDharmshastranam* (discussion on religious scriptures), *Samkatha Maharishinaam* (befriending great sages), *Jeetatmananam* (who have self-control), *Dharmika* (who follow religion), who are *Satvika*, and who are learned people. These therapies, which were adopted during spread of communicable diseases (*Janapadodhwamsa*), can easily save the lives of individuals provided that the death of the individuals is not pre-determined (*Yesham Na MrityuSaamnyamiti*).

In the situation of *Maraka*, *Acharya Sushruta* has also suggested to utilize medicines that have been collected before the onset of diseases and to use pure water [14].

IMPORTANCE OF RASAYANA

Several *Rasayana* botanicals defined in Ayurveda are used in clinical practice for increasing immunity. Based on our research data, we find *Ashwagandha* (*Withania somnifera*), *Guduchi* (*Tinospora cordifolia*), *Shatavari* (*Asparagus racemosus*), *Amalaki* (*Phyllanthus embelica*), and *Yashtimadhu* (*Glyceriza glabra*) are potential immunomodulators.

According to *Kalpadruma*, *Rasayana* means *Rasaraktaadi dhatus* (the seven basic tissues) reaches their suitable destination or the process which help in appropriate nutrition of tissues by *Poshaka rasa*. According to *Sushruta*, *Rasayana tantra* includes different steps of delaying aging process, increases longevity, and intelligence and provides disease resistant power to the individual [15].

According to *Charaka*, *Rasayana* is the method to produce the *dhathus* of optimum quality. According to *Sharangadhara*, *Rasayana* treatment is one which results in the prevention of diseases due to old age [16].

DHUPANAA KARMA (FUMIGATION)

In ancient time and even today *Yagya* are done for the well-being of the mass population as it resulted in mass hygiene. It is also mentioned in *Janapadodhwamsa* in *Ayurvedic* literatures. In *Kashyap Samhita*, *Raksoghana Dhupana* is mentioned for protection from infections and *Gana Dhupana* for all diseases originating from *Bhuta* (microbes) [17].

VAAD CHIKITSA (SOUND THERAPY)

Acharya Sushruta said that if food is contaminated with poison, then different symptoms arises due to that poison and to treat them apply different pastes on various types of instruments and produce sound from them.

Equal parts of these four contents *Taar* (Silver), *Sutaar* (Mercury), *Suvarna* (Gold), and *Saariva* and *Kuruvind* (A kind of precious stone) should be mixed with *Pitta* of cow of *Kapila Varna* (color). This paste should be applied on sound producing instruments. As from, the sound of instruments *Ghor Visha* will be destroyed [18].

NASYA

The application of medicated oils such as *anuTaila*, *shadbindutaila* in both nostrils, this procedure known as *nasya* is well described in *Ayurveda*. Application of pure sesame oil was found to be effective for the treatment of dry nasal mucosa. Similar to *Kavala* and *Gandusha*, nasal oil application possibly forms a biofilm and can help as a barrier to the entry of the virus particles.

TREATMENT OF COVID-19

According to their symptoms and balancing the vitiated *Doshas*.

General medicine for preventive

- Drink warm water throughout the day
- Gargling water boiled with *Triphala/Lavang/Haridra* or gargling lukewarm water add with 1 pinch of Salt
- Take easily digestive, non-gas forming, non-constipating nutrition and not oily, spicy food
- Avoid too much day sleep and excessive exercise
- Do regularly *Yoga, Pranayam*, and Meditation
- Sleep at least 6–8 h
- *Sudarshana ghana vati* 1 tab 3 times or 2 tab twice with water daily
- Take 50 ml decoction of *Guduchi (Tinospora codifolia)*, *Bharangi (Clerodendrum serratum)*, *Shati (Hedychium spicatum)*, *Puskaramoola (Innula racemosa)*, *Shunthi (Zingiber officinale)*, *Maricha (Piper nigrum)*, *Tulsi (Ocimum sanctum)*, *Bhumiamlaki (Phyllanthus urinaria)*, *Kanthakari (Solanum Xanthocarpum)*, and *Kalamegha (Andrographis paniculata)* [19,20].

If all these drugs are not available then prepare with available drugs.

- *Ayush Kwath* - In 3 cup of water add 4 pieces of *Dalchini*, 4–5 pieces of *Lavang*, 1–2 *Elaichi*, 5–7 pieces of Black pepper, 1 *Tejpatra*, 1tsf *Guda*, *Adraka*, ½tsf of *Haldi* and 5–7 *Tulsi* leaves
- *Ayush 64 – Kiratitaktak (Swertia chirata)*, *Kutaki (Picrorhiza kurroa)*, *Saptaparna (Alstonia scholaries)*, *Latakaranja (Caesalpinia crista)*
- Nasal medication
- *Anu Taila* in both the nostril (*Pratimarsa Nasya*) in 2 times per day
- Medicine for increasing immunity

Chyvana prasha Avaleha 1tsf with lukewarm water/milk 2 times per day.

It is also best effect in *Kasa* and *Swashhara*

“*Kashashwasahaschaiva visheshanopadishyate*” (ca.ci.1-1/70)

- *Guduchi Kwatha/Amrutha kwatha/Ayush Kadha* 15 ml with lukewarm water in empty stomach in morning and evening
- Take Lukewarm milk add with ½tsf of Turmeric powder (Golden milk) [19,20].

For Vataj Prakriti

Bramhya Rasayana, Ashwagandha Rasayana.

For Pittaj Prakriti

Amalaki Rasayana, Chyvana prasha Avaleha.

For Kaphaj Prakriti

Agastya Haritaki Rasayana/Vasaavleha/Pippali Rasayana [20].

SINGLE DRUGS

- *Guduchi*
- *Sunthi*
- *Ashwagandha*
- *Tulsi*
- *Maricha*
- *Vasa*
- *Lavanga*
- *Pippali*
- *Talisa.*

CHOORNA

- *Sitopaladi Choorna*
- *Talisadi Choorna*
- *Ashwagandha Choorna*
- *Sudarsana Choorna*
- *Trikatu Choorna.*

KASAYA

- *Gojhwadi Kwatha*
- *Amritadi Kwatha*
- *Dashamooladi Choorna*

- *Guduchyadi Kasaya.*

VATI

- *Giloya Ghana vati/Samsanani vati*
- *Lavangadi Vati*
- *Sanjeevani Vati*
- *Sudarshana ghana vati.*

ASAVARARISTA

- *Amritarista*
- *Kanakasava.*

AVALEHA

- *Chyvanprasha Avaleha*
- *Aswagandha Rasayana*
- *Vyaghree haritaki*
- *Vasaavleha.*

RASAOUSADHI

- *Laxmivilasha Rasa*
- *Chandramrita Rasa*
- *Tribhuvankirti Rasa*
- *Kaphaketu Rasa*
- *Swasha kuthara Rasa*
- *Swarna vasantamalti Rasa*
- *Shwasa kasa chintamani Rasa*
- *Godanti Bhasma* [20].

CONCLUSION

The main objective of *Ayurveda* is *Swasthasya Swasthya Rakshanam*, that is, to maintain health of a healthy person. Prevention is best way to avoid *Aupsargik Vyadhi* (communicable diseases) and consider under *Janapadodhwamsa* so remedies that are told in *Janapadodhwamsa* such as *Rasayana* therapy, *Panchkarma* procedures, *Sadvrit Palan* (code of right conducts), and *Aachara Rasayana*, that is, behavioral therapy, *Homa (Yagya)* should be tried as preventive measure. *Ayurvedic* principles are mentioned 1000 year back but there is so much need to develop or explore in modern era, and need to more research *Ayurvedic* principles in modern terminology to make it understandable and usable for everyone. The world is facing various epidemic disease H_1N_1 (Swine flu), Ebola virus, Zika virus, Nipah virus, Novel coronavirus and still the new variants of SARS-Co-V, for example, COVID-19 U.K. variant (B.1.1.7) has 23 mutations, is coming and due to absence of availability of management of these viral disease, a mass destruction happening hence to save the life of humans the above acknowledged management has important role in immunity improvement and provide strength to combat the disease or *Janapadodhwamsa* (epidemic condition). The constant exposures to several toxins in the present period lead to compromised immune system. Therefore, immunomodulation should be central in medical field to combat several infective, chronic, autoimmune, and anti-viral or any epidemic disease. Some concepts of epidemiology can be compared with *Ayurvedic* concepts. In the present article, an attempt is made to study *Janapadodhwamsa* and compare this knowledge with the recent COVID-19 pandemic.

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