



“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 emphasized the utilization of Aushadh (herbs) and Jala (water) which are not affected or collected before the onset of Maraka [3].

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 bhoji), should remain Dhritiman. With the use of mantras and medicines, one should remain engaged in the saluation of Brahmins, Janamaar by doing this can be avoided [4].

Acharya Kashyapa also talks about the disease which occurs in Janpadvishesha [5].

#### LOCATION OF SAMHASHA (DISCUSSION)

In summer weather, forest area near the banks of Ganga at Kampilya, capital city of Panchala region (i.e., today Kampilya is Farukhabad district in UP of India), which was the residence of the Dwija (elite of the twice born communities like Brahmins). In this place, Punarvasu Atreya speaks to his disciple Agnivesha [6].

#### ORIGIN OF JANAPADODHWAMSA

Foremost reason mentioned by Acharya Charaka for Janapadodhwamsa is Adharma (immorality). Adharma is an antonym to Dharma which denotes lack of morality, or unrighteousness in the people. Unethical and non-harmonious practices among communities and people come under Adharma. The root cause of Adharma is said to be Pragyaparadha (delinquency of wisdom). Asatmyendriyarthasamyoga, Pragyaparadha, and Parinama have been described as the main factors for the development of any disease [7]. The word Pragyaparadha is made from two words pragya+aparadh. Pragya=Dhee + Dhriti+Smruti, and aparadh means misdemeanor. Deranged Dhee (intellect), dhriti (patience), and Smriti (memory) lead to all sorts of Ashubh karma (unwholesome/inauspicious actions). This is called as Pragyaparadha and causes vitiation of all Doshas [8,9]. Pragyaparadha is even said to be the cause of all Aagantuka (exogenous) and Manasika (mental) Vyadhi [10].

Acharya Charaka has also described Lobha (greed) as a factor leading to Adharma. Further, reason for Bhutasangha (contact with an organism) Abhishapa (curse) has also been described as Adharma [11]. Lobha (greed) along with Abhidroha (affronting) and Kopa (anger) has also been mentioned as etiological factors for the occurrence of eight major diseases [12]. Acharya Sushruta has mentioned that the reason behind the change in Marakais Adrishta (invisible or idiopathic). Further, Dalhana explains these to be caused by the Adharma (immorality) of population of that particular area. Sometimes, the Ritu Vyapad (seasonal variations) may also be caused due to various reasons such as Abhishaap (curse) and Rakshkrodh (demon resentment) [13].

#### QUERY AND EXPLANATION

After properly collection of drugs, Agnivesha ask question to Acharya Punarvasu Atreya that “How does the simultaneous destruction of communities or Janapadodhwamsa take place by the incidence of only single disease, in spite of individuals who differ from one another in

their constitution (Prakriti), diet (Aahara), physique (Deha), vitality (Bala), habits (Satmya), psychic make up (Satva), and age (Vaya)?”

Acharya Punarvasu Atreya explained to Agnivesha that although a community may be dissimilar with respect to the constitution and other characteristics of its individuals, here are some common factors which often get adversely affected, resulting in outbreak of diseases having similar symptoms that destroy communities, that is, Samanya Tat Vaigunyaat Samankaala Samanalinghacha Vyadhyorabhinirvrittamana Janapadam Udwansayati [14]. The common factors which affect mass population are Vayu (air), Udaka (water), Desha (land), and Kaala (season).

#### FEATURES OF JANAPADODHWAMSA

In Janapadodhwamsa, mainly the said four factors are affected and results in mass annihilation. Acharya Charaka has described Vikritalakshanas (altered characteristics) of the said factors which are as follows [15].

#### SHUSRUTA SAMHITA NIDANA STHANA CHAPTER - 5

“प्रसंगाद्गात्रसंस्पर्शान्निवासात्सहभोजनात् |

सहशय्याससनाच्चापविस्त्रमाल्यानुलेपनात्||” (सु.नि.5/32)

Acharya Sushruta (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 other person. Here, according to Acharya Dalhana Prasangaat means excessively and frequently, if these activities are performed [16].

#### JANAPADODHWAMSAKARA BHAVA (MOST DANGEROUS BHAVA)

Impairment of Vayu (air), Udaka (water), Desha (land), and Kaala (season) is more lethal in their increasing order. Kaala impairment is most dangerous. The wise man should know that “Gariya Param Iti” water is more important than air, land is more important than water, and Kaala is yet more important than Desha by virtue of their degree of indispensability [17].

#### GENERAL TREATMENT OF JANAPADODHWAMSA

वगिणेष्वपखिल्वेतेषुजनपदोद्ध्वंसकरेषुभावेषुभेषजनोपपाध्यमानानामाभयंभव तरिगेभ्यइति|| [18] च.नि.3/8

येषांनमृत्युसामान्यंसामान्यंनचकर्मणात् |

कर्मपञ्चवधितेषांभेषजंपरमुच्यते ||

रसायनानाम्वधिविचोपयोगःप्रशस्यते |

शस्यतेदेहवृत्तश्चभेषजैःपूर्वमुदधृतैः || [17] च.नि.3/13-14

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 before the onset on diseases in that particular area.

Along with this Satyabhuta (truthfulness), Bhoote Daya (compassion for living beings), Dana (charity), Bali (scarifies), Devatarchana (prayer to the gods), and Sadvritta Anuvritti (good deeds), protection of the self by Mantra, etc. is very effective, Shivanaamupsevam (devotion towards God), “Sevanambrahmcharyasyatathevbbhramcharinaam” service to

those observing *brahmacharya* (celibacy) and following it, *Samkatha Dharmshastranam* (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 when adopted during spread of communicable diseases (*Janapadodhvamsa*), can easily save the lives of individuals provided 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 [18].

#### IMPORTANCE OF RASAYANA

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

According to *kalpadruma Rasayana* means *rasaraktadidhatus* (the seven basic tissues) reaches their proper destination or the process which help in proper nourishment of tissues by *poshaka rasa*. According to *Sushruta*, *Rasayanatantra* includes different steps of delaying aging process, increases longevity, and intelligence and provides disease resistant power to the individual [19]. 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 [20].

#### DHUPANAA KARMA (FUMIGATION)

In ancient time and even today, *Yagya* are done for the welfare of the mass population as it resulted in mass hygiene. It is also mentioned in *Janapadodhvamsa* in *Ayurvedic* literatures. In *Kashyap Samhita*, *Raksoghana Dhupana* is mentioned for protection from infections and *Gana Dhupana* for all diseases originating from *Bhuta* (microbes) [21]. In *Charaka* and *Sushruta Samhita*, different types of *Dravyas*, that is, drugs are mentioned in different diseases that are used for *Dhupana Karma*. Like, *Guggulu* (*Commiphora mukul*), *Nimba* (*Azadirachta indica*), *Vacha* (*Acorus calamus*), *Kutha* (*Saussurea lappa*), *Haritaki* (*Terminalia chebula*), *Sarsapa* (*Brassica campestris*), *Yava* (*Hordeum vulgare*) with *Ghritha* [22]. In *Sushruta Samhita*, *Rakshoghna Dravya* is mentioned like *Sarsapa*, *Nimba*, *Lavana* with *Ghritha* fumigation with them to be done twice a day for 10 days. Microbes are destroyed by *Raksoghana* drugs [23].

#### 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.

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

S. No.	Factor	Vikritakshana (altered characteristics)
1.	Vayu (air)	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>Atyabhishtyandi</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>Asatmaygandhavashpasiktapanshudhumophatamiti</i> (wind with unwholesome smell, mixed with gases, sand, ashes, and smoke)
2.	Jala (water)	1. <i>Vikrutgandhavarnarasasparsa</i> (Abnormal smell, color, taste, and touch) 2. <i>Kledabahula</i> (excessive stickiness) 3. <i>Jalcharavihangam</i> (water bodies are devoid of aquatic animals such as fishes) 4. <i>Upkshinamjaleshaya</i> (reduced water levels in lakes and ponds) 5. <i>Apritikaram</i> (unpleasant appearance or taste) 6. <i>Upgatagunam</i> (devoid of natural qualities)
3.	Desha (land)	1. <i>Vikrutgandhavarnarasasparsa</i> (Abnormal smell, color, 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>Pratataulkapatanihatabhumikampa</i> (frequent occurrence of meteorites, thunderbolts, and earthquakes) 11. <i>Atibhayavaramroopam</i> (hearing of fearful sounds) 12. Sun, moon, and stars appear as they are covered with coppery, reddish-brown, and whitish-colored clouds
4.	Kaala	13. People living on the land appears as confused, bewildered, agitated, sorrowful, frightened, etc. Features opposite, excessive, or less to the features of normal course of season

तारःसुतारःससुरेन्द्रगोपःसर्वैश्चतुल्यःकुरुवन्दिभागः॥

पतितेनयुक्तःकपलान्वयेनवाद्यप्रलेपोवहितिःप्रशस्तः।

वाद्यस्यशब्देनहयिन्तनिशंविषाणघोरान्णयपयिन्सिन्तति।<sup>सू.सू.३/१३-१४</sup>

Equal parts of each of these contents *Taar* (Silver), *Sutaar* (Mercury), *Suvarna* (Gold), *Saariva*, and *Kuruvin*d (A kind of precious stone or *Musta*, i.e., *Cyperus*) total of above four *dravya*, these 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 [24].

#### NASYA

*Ayurveda* recommends the application of medicated oils such as *anu Taila*, *shadbindutaila* in the nostrils. This may protect the respiratory tract from pathogen entry. 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 mouth *Gandusha*, nasal oil application possibly forms a biofilm and can help as a barrier to the entry of the virus particles.

#### Other treatments

Steam inhalation and hot fomentation (with aromatic oils such as menthol) provide satisfactory clinical relief in nasal and throat congestion, bronchoconstriction, headache, and sinusitis. Its role in improving nasal conditioning, improving nasal mucus velocity, and reducing congestion and inflammation has been reported in several clinical studies.

*Ayurveda* advocates several non-pharmacological measures that are critical to overall health, including diet, sleep, mental relaxation, lifestyle behavior, and Yoga. Several studies have endorsed the role of *pranayama* (Yoga breathing techniques), *asanas* (postures), and *yogic kriya* procedures in improving lung health and exercise tolerance. The recommended daily diet includes fresh hot soups of vegetables (radish, *Trigonella* leaves, and drumstick vegetable pods) and pulses (lentils, green gram/mung beans, and chickpeas) seasoned with spices such as *Mulaka* (*Zingiber officinale*), *Lahsun* (*Allium sativum*), *Ajwaain* (*Cuminum cyminum*), and *Sharshapa* (*Brassica nigra*).

#### DISCUSSION

To conclude one who desires for healthy and happy life, one has to follow regular preventive principle told in *Ritucharya Adhyaya* mentioned in *Ayurveda* for the prevention of diseases. *Acharya Charaka* has divided the etiological factors into two different categories, that is, *Niyata Hetu* and *Aniyata Hetu*. The *Niyata Hetu* are factors that affect commonly to all the individuals in a particular community and include the harmful effects of sun, moon, stars, and planets such as floods, cyclones, landslides, earthquakes, and tsunami. *Aniyata Hetu* are factors that include *Pragyaparadha* (terrorism, War, etc.), *Shastra Prabhavaja* (nuclear weapons, advanced weapons like bio-weapons), *Abhisyangaja* (effects of pathogens, evil forces, and unhygienic condition), and *Abhishapaja* (curse). These factors may affect the entire community and cause communicable disease known as *Janapadodhvamsa Rogas* [25]. *Charaka* describes three different methods in the management of conditions tend to produce disease, that is, *Apakarshana*, *Prakriti Vighata*, and *Nidaana Parivarjana* [26]. *Acharya Sushruta* defined *Nidaana Parivarjana Chikitsa* as “*Samshepatah Kriyayogo Nidana Parivarjanam*.” Avoiding the causative factors, which are responsible for causation of disease, it is the primary step to prevent pathogenesis. As told earlier to prevent *Janapadodhvamsa*, the usage of *Rasayana* therapy, *Panchkarma* procedures, *Sadvrit Palan* (code of right conducts), and *Aachara Rasayana*, that is, behavioral therapy should be used.

#### 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 *Janapadodhvamsa* so remedies that are told in *Janapadodhvamsa* 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. Adoption of *Ayurveda* dietetics and lifestyle, *Panchakarma* therapies, *Rasayana* therapies may effectively contribute to prevent and manage situations especially like disease outbreak. Further research studies are required to support the preventive and curative aspects of *Ayurvedic* management during epidemic and pandemic conditions.

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