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Contemporaneous Principles of *Janpadodhwamsa* (Epidemiology) – An Ayurvedic Intellect

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ABSTRACT

Ayurveda provides a description of every aspect of sickness and life. Under the concept of *Janpadodhwamsa* *Acharya* mentioned four essential factors, i.e. *Vayu* (air), *Jala* (water), *Desha* (land) and *Kaala* (season) and their abnormal alteration which causes adverse effect not only individual living beings but also a whole community. *Adharm* (immorality) is the foremost cause of *Janpadodhwamsa* and today humans forget all their responsibility for nature and committing misdeed in the form of *Adharm* regarding nature. In the context of the present, all these mentioned changes are visible and peoples are being affected by them. A similar situation also occurs in epidemics and pandemics. In the present review article primarily focussed on to understand the concept of *Janpadodhwamsa* and its cause in current scenario.

Key Words *Janpadodhwamsa, Adharma, Epidemic, Pandemic*

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INTRODUCTION

यदिहास्ति यदन्यत्र यन्नेहास्ति तत्कृत् 1

Dradabala quoted about the prerogatives of *Charak Samhita*, and says that all available medical knowledge is described in a single *Samhita*. In *Ayurveda* all the essential knowledge of different aspect of medical science is described in a plenary manner by various *Acharyas* in *Samhitas* and entire knowledge is stated in *Hetu*, *Linga* and *Aushadha* for ease. People affected by peculiar diseases, according to their unequivocal physical & mental properties, immunity and routine activities. Aside from this some specific disease affects all the individuals in the same manner and causes mass destruction². *Acharya*

Charaka concluded such type of disease is the cause of *Janpadodhwamsa*. The factors that are common and affect all the individuals in a community are the causative factors of it, such as *Vayu*, *Jala*, *Desha*, and *Kala*². The outbreak of infectious disease that spreads quickly and affects many individuals at the same time called epidemic while an epidemic became pandemic when it spreads over a significant geographical area³. The resistant strains of infectious organism frequently appear and potential spread of such organisms accelerate by the massive increase in the speed and volume of global travel

MATERIALS AND METHODS

The 21st century: A long runtime of scourges



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The early years of the 21st century have already been deeply scarred by so many major epidemics. SARS – was heard in 2003 and affects more than 8,000 peoples. In 2009, novel influenza virus, H1N1, started to spread, creating pandemic. In 2012-2013, new virus surfaced in the Middle East, causing an epidemic of MERS – Middle East respiratory syndrome, the Ebola epidemic in West Africa in 2014. In 2015, the Zika virus, transmitted by the *Aedes Aegypti* mosquito, triggered microcephaly. Old diseases – Cholera, Plague, Yellow fever often return, and new ones invariably arrive to join them⁴. In recent, a novel coronavirus is identified in about 31 Dec. 2019 and still going on, which affects 216 countries and approximately 7690708 peoples, according to WHO. This misery has another, deeper hazardous aspect as epidemics in the 21st century are spreading faster and farther than ever⁵. Upsurges that were previously localized can now become global very rapidly.

Ayurvedic comprehension of infectious diseases

Acharya Sushruta has a very compendious prospect regarding *Sankarmna* as *Aupsargika Roga* which can transmit through sexual intercourse, air contamination, physical contact, eating together, sharing objects and sleeping together⁶. Whereas *Acharya Vagbhatta* elaborates concept of *Aagantuj Roga*, *Acharya Bhavmishra*, *Yogratnakar* also infer about the diseases which spreads through various contacts. Such type of diseases incorporates *Kushtha*, *Netra Roga*, *Yakshma* and *Jwara*. According to modern science viruses and other microbes are known to travel

from site to site by Inhalation, Fecal-oral, Direct contact, Via animals, etc. The ability of microbes to mutate has set science back on its heels and makes the permanent eradication unrealistic.

Conviction of fundamental elements in the context of epidemic

Vayu - *Acharya Charaka* mentioned character of *Dushit* (polluted) *Vayu*, as not in conformity with season, totally calm or violently blowing, exceedingly rough, Intensely cold, excessive hot & dry, humid, blowing in the opposite direction, associated with unwholesome odor, moisture, sand, dust and smoke. This concept can very well be compared to air pollution⁷.

Jala - Water abnormal in smell, color, touch, taste, excessive stickiness, devoid of aquatic animals, birds, drying up water reservoir, devoid of normal attributes, considered as *Vihrit Jala*⁸.

Desha - Land which is having abnormal color, odor, taste and touch, excessively damp, abundance of serpents, beasts, mosquitoes, locusts, flies etc, people's virtues like religion, truth, modesty, custom, character have been given up, wind is smoky, herds of animals and flocks of birds of various kinds are always in a state of panic and pain, water reservoirs always alter and are over-flowing, Stars are frequently covered by dry, coppery, ruddy and grey clouds, frequent earthquakes papers, grants as *Vikrit Desha*⁹.

Kala - *Kala* is called abnormal if brewing excessive or deficient characteristics of such season¹⁰.

Acharya Charaka was concerned about the changes of *Vayu*, *Jala*, *Desha* and *Kala* which



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designates regarding the changed climate patterns including global warming and pollution. In the present era, traditional sources of air pollution come from energy use and production, which releases gases and chemicals into the air. Smog and soot are the most prevalent types of air pollution¹¹. Water is the universal solvent and gets easily polluted by dissolving poisonous substances formed by towns, and factories. Every year over 8 million tons of garbage is dumped into the ocean. Polluted air and water harms creatures. The burning of coal, releases sulfur dioxide and nitrogen oxide gases into the atmosphere which assimilate with the clouds to change the normal nature of rainy water and appears in the form of Acid rain, this can eliminate an entire species of animals and affect the ecosystem. Current measurements of CO₂ levels have exceeded above 400 PPM, the increase of CO₂ emissions has contribute to the planet's temperature. The average earth's temperature is increased almost a whole degree. Due to increased temperature ice and glaciers starts melting, this causes the ocean levels to rise at a rate of 3.42 mm per year¹². Because of raised global temperature, there is a drastic change occurs in the earth's weather. The CO₂ is responsible for ocean acidification, and the concentration of CO₂ is changing and also changing the ocean acidity by 30% in the last 200 years. According to a study, 730 sites are identified where human activities are responsible for earthquakes, over the past 150 years¹³.

All the substances in the world are derived from *Panchamahabhoot*, *Akasha*, *Vayu*, *Agni*, *Jala*, and

Prithvi. Hence, when one element is contaminated, it also contaminates the other, as mentioned by *Acharya* that, vitiation of *Vayu* (air), *Udaka* (water), *Desha* (land) and *Kala* are more lethal in their increasing order¹⁴. Land which shows *Vikrita Desha Lakshana* and affects entire atmosphere, change the integrity of season and make the *Kala Vikrit*. *Kala Dushti* is the extreme condition of polluted elements. Earth creatures are samplers of *Panchamahabhoot*. Alteration in these basics causes vitiation in immune power of them and make more prone for any kind of diseases. This condition is morbid to humans and mortal to some small bodily and leads to harm entire ecosystem.

***Adharma*¹⁵: The key sinner, essence in present scenario**

Acharya Charaka described that *Adharma* and *Pragyaparadh* are provenances of *Janpadodhwans* as a consequence of *Lobha* (greed)¹⁶. Monier-Williams's lists the following meanings of the term *Dharma*: prescribed conduct, right, duty, justice, morality, virtue, religion, religious merits and good work according to a right or rule, among others. Manu lists 10 such principles of *samanya dharma*: contentment, forgiveness, disciplining one's mind, non-stealing, inner and outer cleanliness, controlling lust and greed, cultivating curiosity and lust for knowledge, seeking self-knowledge and insight, truthfulness, and controlling anger. The term *Dharma* is discussed¹³ on its etymological sense tracing to its root verb '*Dhr*', which means 'to hold, sustain, or preserve'. Thus, it suggests that



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Dharma is that which holds a society together. Seeing that, *Dharma* implies a set of duties assigned to each person relevant to his or her standing in society. Humans are linked with the natural environment within various restraints. Due to greedy nature, humans start to suppress natural resources and forget their moral duties regarding nature and humanity. With an exponential expansion of gluttony in human being, more food, materials and shelter are being manufactured at stupendous rates.

Management

As mention in *Charaka Samhita* sound knowledge, control interventions, expert guidance and life-saving interventions must be available, when all the prodromal changes appear. Strengthening of human immunity power with the *Rasayan sevana*, internal purification by *Panchakarma* procedures¹⁷ as well as external purification of environment is essential.

DISCUSSION

Under the concept of *Janpadodhwamsa*, *Acharya* mentioned special ailment, affecting a wide range of community as a consequence of changes in the four essential elements which are common for all living beings. Here *Acharya* has also described the pollution of *Vayu*, *Jala*, *Desha* and *Kala* in terms of *vikrit lakshana*. The five elements, *Akash*, *Vayu*, *Agni*, *Jala* and *Prithvi* are the essential elements for living beings. The Health of the individual is dependent on these factors. The dynamic equilibrium between man and

environment is deteriorating due to carelessness and greedy tendency of humans. In the present era pollution is a common problem all over the world which is adversely affecting the immunity of humans and also the development and growth of an organism, hence organism can easily affect the human beings, which can be seen as epidemic and pandemic occurring from time to time. *Acharya* has not only describe this entire condition very well, but also mentioned the management for this in the form of *Rasayana sevana*.

CONCLUSION

A huge number of principles are available in the *Ayurveda* and on the basis of analysis, it can be said that the concept of epidemics is unenlightened by *Acharyas* in terms of *Janpadodhwamsa*. All the several variants described in the classical texts, are mentioned in a specific and scientific demeanour on the basis of the degree and intensity of the event. The Epidemic adversely affects the peoples and creates fear and panic across the world, and inflicting enormous economic damage. An overview on the past history of epidemics strongly supports the phenomena of human interferences in nature in a deadly way. Human activities affect the natural habitat in so many ways; hence there is a need to be aware of these activities and their impact on environment. As we progress through the 21st century, humans have changed the world in unprecedented ways. It can say that, epidemic or *Janpadodhwamsa* is unpredictable powers of nature.



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