Ayurvedic pandemic perspective: A narrative review

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Abstract The human race has been under the onslaught of the COVID-19 pandemic for the past several months. The frequency, magnitude and unprecedented nature of the pandemic have imposed global chaos. The traditional lessons procured from the epidemic approach have converged to the delta of trained incapacity, as aptly quoted by Kenneth Burke, echoing the sentiments of the esteemed economist and sociologist Thorstein Veblen. Our habitual thought processes tend to encourage a focus on similarities, inadvertently overshadowing lateral considerations and vital distinctions, thereby generating blind spots in our approach to remedies (Burke 1984). Thus, the extraction of information from diverse sources assumes paramount importance in formulating strategies for both preventing and addressing pandemics.

1. Introduction


Ayurveda portrays concept of Janapadhodhwamsa— simultaneous event of death, disease death and resultant devastation of a large population spread over geographical entity, country or world as whole from multiple reasons (Sharma 2013). It justifies the description of COVID-19, a dreaded pandemic that has uprooted contemporary perceptions, priorities of health, wealth, and power (Nicola et al., 2000).

The conventional lessons gleaned from an epidemic approach have culminated in a state of trained incapacity, as aptly quoted by Kenneth Burke, echoing the sentiments of the esteemed economist and sociologist Thorstein Veblen. Our habitual thought processes tend to encourage a focus on similarities, inadvertently overshadowing lateral considerations and vital distinctions, thereby generating blind spots in our approach to remedies (Burke 1984). Thus, the extraction of information from diverse sources assumes paramount importance in formulating strategies for both preventing and addressing pandemics.

The present study constitutes a narrative review of the conceptual framework of Janapadhodhwamsa. It aims to elucidate the causal factors, alarming indicators, nature, and provides insights into remedial measures for such all-encompassing catastrophes.

2. Malady features
The fundamental characteristics of Janpadhodhwamsa encompass factors related to the concurrent manifestation of diseases, transcending variations in bodily constitutions, populations displaying identical symptoms, and the devastation of regions where air, water, and land serve as mediums for disease transmission.

COVID-19, a formidable pandemic, presents a striking occurrence within communities, surpassing expectations and necessitating assistance from external sources (Fox et al., 1970).

When we contemplate the concepts of Vyadhi (Disease) and explore them within the context of Papa (sinful acts), Mithyachara (inappropriate actions), Athanka (imparting disaster), Gada (disease of multiple causation), and Abadha (evoking profound suffering), they emerge as highly relevant (Sharma, 2013).

3. Triad Triumph

3.1. Agent

The virus causing COVID-19 is termed severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The mode of transmission of SARS-CoV-2 is through direct contact via droplet and human-to-human transmission and indirect contact via contaminated objects and airborne contagion (Lotfi et al., 2020). Uncommon spread is also reported from asymptomatic individuals (Rothe et al., 2020).

Concept of Upasargajayadhi (infectious diseases) in Susruthasamhitha illuminates Pischadikrita assumed as microbe borne, Samsargaja understood as contagious and Akasmikaja equated as those caused accidently. Rogasankramana (disease spread) is described through Gatrasamsparsat (physical contact), Nishvasat (inhalation), close contact through Sahabhojanaath (dining together) and Sahasayasanat (sitting and sleeping together) and Vastramolayanulepanat (contact with clothes, garlands) (Murthy, 2012).

3.2. Host

Humans offer lodging to viruses: the level of immunity and the genetic makeup level of the exposure state of health are debated issues in the pandemic era, hinting at a widescope in exploring prakruti in pandemics.

3.3. Environment

Encompasses living, nonliving material components surrounding humans: elicited as amalgamation of soil, water, air and socio-economic conditions.


However, twenty-eight years later, in 2020, on World Earth Day, UN Secretary-General António Guterres opined, “We must act decisively to protect our planet from both the coronavirus and the existential threat of climate disruption.” Man has manipulated all environmental components, and consequently, ill health is precipitated by adverse effect softwater pollution, soil pollution, air pollution, poor housing standards, and destruction of natural habitats, flora and fauna (Park, 2019). The everpervasive Kala component encompassing diverse events of war, riots and famine is considered the most influential among the four components.

Pandemic recurrence at periodic intervals can be considered under the Kala parinama-irresistible cyclic temperament of time (including seasonal variations) and Rituviparyaya (abnormal seasonal manifestations).

Rituviparyaya: emergent diseases such as Jwara(fever), Atisara (diarrhea) and Pratishaya(allergic rhinitis) are manifested in the COVID-19 spectrum (Murthy, 2012).

In tropical ocean systems, the western part of the Indian Ocean is experiencing the fastest warming mode with an increase in summer temperature and an average increase of 1.2 degrees Celsius. (Roxy et al., 2014). Drastic climate change in surrounding sites, both in frequency and magnitude, is a feared outcome (Ummelhofer and Meehl, 2017).

Adharma (onslaught of unrighteousness): Corner stone of vitiation, stipulated as Adharma, is gross violation of Dharma (righteousness). Adharma impact percolates from upper to lower social hierarchy and creates unrest (Sharma, 2013). The magnanimous effect of Adharma can alter macrocosm components, denoted by the Daivabalaprawratta concept (originating from forces beyond human control) (Murthy, 2012). Prajnapradha (intellectual blasphemy) triggers Rajas and Tamas, propagating jealousy and competitiveness and inflicting harm and greed and ignorance, respectively (Sharma, 2013).

Desert locust attacks in African countries, which present great risk to life and property, are linked to irreversible climate change and alarming temperature elevation, and the chaos is further intensified by political instability and a lack of coherent government responses and funding (Merrit, 2020; Weather and Dessert Locust Report, 2016; Editorial Nature, 2020).

Hence, Adharma, staged at powerful administrative and intellectual power, evokes enormous disturbances in society, renders a slower population immunity and elevates disease death susceptibility.
Adharma leads to unfavorable and undesirable outcomes, encompassing the escalation of both infectious and non-communicable diseases, adulteration, abhorrent sexual deviations, corruption, violence, and even acts of bioterrorism. According to the International Statistics on Crime and Justice in 2010, published by the United Nations Office on Drugs and Crime, the global homicide rate was estimated at 7.4 per 100,000 population in 2004, resulting in approximately 490,000 violent deaths that year. Over the course of a decade, from 1997 to 2007, the worldwide prison population showed an overall increase. In 78% of the 134 countries with available information, the prison population rose by over 50% in 45 of these nations. The trend in reported rape cases revealed a significant increase, with a median of 5.3 cases per 100,000 people in 1998 rising to 6.8 cases in 2008. Kidnappings, on the other hand, displayed no significant change over the course of two decades.

Unethical inclination propels polluting vayu (air), jala (water), desha (land) and kala (season). Climate change, activities disrupting biodiversity, deforestation, indiscriminate agriculture modernization and illegal wildlife trade, and unnatural livestock propagation methods are factors contributing to the increase and transmission of infectious disease from animals to humans, especially in COVID-19 (Fancourt et al., 2020) (Table 1).

### Table 1 Warning Signs of Abnormal Physical Environmental Factors.

<table>
<thead>
<tr>
<th>Vitiated Air</th>
<th>Vitiated Water</th>
<th>Vitiated Land</th>
<th>Vitiated Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not in conformity with season</td>
<td>Unnatural smell</td>
<td>Unnatural smell</td>
<td>Early rains</td>
</tr>
<tr>
<td>Totally calm or violently blowing</td>
<td>Unnatural color</td>
<td>Unnatural color</td>
<td>Too little rain</td>
</tr>
<tr>
<td>Exceedingly rough</td>
<td>Unnatural taste</td>
<td>Unnatural touch</td>
<td>Excessively hot summer</td>
</tr>
<tr>
<td>Intensely cold</td>
<td>Unnatural touch</td>
<td>Excessively damp</td>
<td>Excessively cold winter</td>
</tr>
<tr>
<td>Intensely hot</td>
<td>Excessive stickiness</td>
<td>Abundance of serpents, wild animals, mosquitoes, locusts, flies</td>
<td>Frequent occurrence of meteoroites, thunderbolts</td>
</tr>
<tr>
<td>Excessively humid</td>
<td>Source is devoid of aquatic animals</td>
<td>Having jungles of grass and weeds</td>
<td>Fierce look and cries in nature</td>
</tr>
<tr>
<td>Blowing from contrary directions</td>
<td>Source is a reservoir devoid of unpleasantness</td>
<td>Having a novel look</td>
<td></td>
</tr>
<tr>
<td>Associated with unwholesome odor, moisture, sand and dust</td>
<td>Excessively branched creepers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Tackling Tricks of Ayurveda in Epidemics

Population resistance to a disease or disaster is invariably dependent on its capacity to tackle problems as a social issue (Ali and Alharbi, 2020). Health and disease cannot be marginalized, at least not in a pandemic situation (Wade, 2020) (Figure 1).

![Figure 1 Illustration of Ayurveda guidelines in the management of an epidemic.](https://www.malque.pub/ojs/index.php/mr)
4.1. Health care equity
The eco-friendly population strategy is built on population health equity and primary health care grounds (Wang and Tang, 2020; Garg et al., 2020). Ayurveda – flag bearers of health maintenance, promotion and sustenance contribute to public health interventions (Morandi et al., 2011).

4.2. Value-oriented approach
Health disruption as a socioethical menace is projected by Janapadodhwamsa. Personal health homeostasis lubricated by social and spiritual health provides a convincing solution. Driving life force (praneshana) supported by (artha) materialistic aspiration embarked on virtues, and morality is a token of scientific temperament enclosed in ethical envelope. This objective is realized by reaching out to channelize Dharneeyavega (suppressible urges) and averting prajnapradha. This involves active participation in deciding Hita (favorable) and Ahita (unfavorable) factors.

4.3. Meaningful adaptation
Ritucharya (seasonal regimen), a seasonal adjustment procedure that begets maximum benefits from climatic status change and eludes undesirable impacts, develop strained adaptability and adjustment (Thakkar et al., 2011).
Adaptation involves change in existing practices and behavioral transformations. Researchers opine that people are more empowered to respond positively when they see others doing the same (Barnes et al., 2020). Free trade aid in curbing hunger and this liberalization makes global food provision less vulnerable to climate change; reduction and phasing-out of tariffs can intensify positive effects (Janssens et al., 2020).

4.4. Immunity improvement
Susceptibility to impact of Janapadodhwamsa is inversely proportionate to Vyadhikshamatwa (immunity status) (Sharma, 2013). Vyadhikshamatwa ignites both Bala (enabling encounter and surpassing disease) and Vikaravighatabhava (ability to guard against disease occurrence, reoccurrence). Vyadhikshamatwa can be augmented by imbibing Balavriddhikarabhava (factors increasing strength), adhering to Trayopasthambha (conducive food, sleep, sexual aspect), Sadvritta (good conduct), Dincharya (daily regimen and Ritucharya (seasonal regimen), Rasayana (rejuvenation), Yoga, Agrirakshana (protection of digestive fire), Kaole Samshodhana (timely purification), Balya Oushadhi Sevana (intake of medicines increasing strength) and Achara Rasayana (good conduct).

4.5. Reinstallation of Dharma
Controlling the pandemic requires sustained efforts propelled by Dharma, which stipulates behavior for protection and the wellbeing of society. Etiological factors of Janapadodhwamsa include Niyatatankaparyayahetu (inevitable factors) and Aniyataatankaparyaya (evitable factors). Evitable factors are delivered by Adharma, wars, and pathogens infection (Sharma, 2013). Adharma is fuelled by Rajas and Tamas, which are portrayed as anger, greed, lust, pride, prejudice and unhealthy competition. Together, they culminate as Dharaneeya Vega – urges that demand surveillance and no expression. Hence, compliance with the utilitarian framework of Sadvritta (code of right conduct), Achararasayana converges in to ethical code for society. Unfortunately, the contemporary zeal of disaster response management and preparedness is short lived. Athmagupthi by sthanaparitvayaga (self-protection by judicious migration) and residence in auspicious surroundings are reflections of self-protection techniques advocated in catastrophe (Sharma, 2013).

4.6. Anticipatory Preparedness
Rasayana (rejuvenation) and detoxification by panchkarma (purificatory therapies) aimed at enhancing herd immunity in the prepandemic phase and attaining sustainable health goals. Disasterturmoil, including COVID-19, can be detangled by positive temperaments of Satvaguna, strengthening individuals and communities by preventive purificatory methods. Preserving and storing drugs and food grains in unanticipated natural calamities is a highly recommended Ayurveda model. In the modern sophisticated era, this preparedness intended to mitigate disaster impact and accelerate the recovery phase is still not a priority (Webby and Webster, 2003).

4.7. Spiritual awakening
The spiritual health and psychological support system is enhanced by averting Rajas and Tamas and indulging in positive energy synergism. Adhering to truthfulness, charity and compassion are key for propagating positive energy (Sharma 2013). Upadhatyaga – absolute misery eradication is augmented problem tackling technique (Sharma, 2013; Murthy, 2012).

5. Action Plan
Cohesive action plans should effectively manage modifiable factors and accept nonmodifiable factors. It involves individual and community commitment and imbibes physical, psychological, medical, legal, economic, and social sectors (Rastogi et al 2022; Rastogi 2021) (Figure 2).

**Figure 2** Conceptual framework of Ayurveda epidemic management.

6. Final Considerations

Exacerbation of the COVID-19 pandemic can be viewed as a butterfly effect of Adharmasteered by staggering primary health care, an unequal economy, armed conflicts, poor governance, a weak warning system and encroaching bioterrorism. Lingering to *Pranjaparadha*, perverse thought, *decision and actions is the core of Adharma* in testing times of pandemic, and an Ayurveda model based on social security appraisal, preparedness-cost-effective eco-friendly methods and moral commitment would be worth considering.

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**Ethical considerations**

Not applicable.

**Conflict of Interest**

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