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Immunity, janapadhovansam and covid 19- A Review

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Abstract:

Background: Fact for life is people spend their 'health gaining wealth', and then have to spend their wealth to regain health. Time and money wait for no one so the best investment for life is investing it in preserving our health. Sharangdhara samhita quotes "no creature is immortal it is impossible to prevent death, but it is possible to prevent diseases. so one should try for which is preventable. The immune system which forms a base line of defence mechanism fails in combating the newer challenges of invading viruses, bacterias etc. Ayurveda as an ancient old science also believes in the concept of protecting the health by preparing the body to build its innate immune system stronger. *Vyadhikshmatva* is a much broader concept studied in Ayurveda in relation to immunity.

The concept of immunity has been flaring waves amongst the population since the outbreak of covid 19. Ayurveda considers it as a '*Janapadodhwamsa Vikara*' and this pandemic is caused by *vishanu* (Micro Organism) and spreads from person to person through *Sankramaka*. Ayurveda clearly explain that this type of pandemic diseases originates from *Adharma* or *Pragnaparadha*. Its practice also gives the newer path in discovering various immune enhancing medicines to help in building our own defence mechanism so that to combat with the conditions like covid 19.

Aim and objectives: To study the Ayurvedic perspective of immunity & janapadhovansam by exploring ancient and modern science. **Material and method:** Various Ayurvedic references, research articles, electronic support articles to be studied. **Discussion:** The clinical relevance of Ayurvedic immunology discussed with reference to *vyadhikshamatva Janapadodhwamsa Vikara and covid 19*. **Conclusion:** Various evidence in support of Ayurvedic perspective of immunity give newer hope to health care system to fight the odds of resistance microbes and conditions like covid 19 by developing immune system. Ayurvedic lifestyle, diet, yoga, use of rasayanas as proven immunomodulators can help in fighting the plight of irresistible invaders in future too.

Keywords:Immunity,vyadhikshmatva,,Janapadodhwamsa,covid19, rasayanas, imunomodulators,

Introduction:With various challenges to the health care world the resistance of individual to fight various disease is also one such challenge.The immune system which forms a base line of defence mechanism fails in combating the newer challenges of invading viruses,bacterias etc.Ayurveda as an ancient old science also believes in the concept of protecting the health by preparing the body to build its innate immune system stronger.Vyadhikshmatva is a much broader concept studied in Ayurveda in relation to immunity¹.

The concept of immunity has been flaring waves amongst the population since the outbreak of covid 19.Immunity is body's defence mechanism against any unwanted invaders.The stronger is your immune system the more less chances of being affected by viruses,bacterias etc. The natural immune system of our body is build from the time we are at our mother's womb and this fact Ayurveda explores the importance of naturally building our self army to defend future challenges of health. Ayurveda concept of immunity is dimensionally wide and interesting. Immunology has evolved by leaps and bounds. Ayurvedic concept of vyadhikshamatva¹ can have correlation to the trending concept of immunity in conventional sciences.Vyadhi implies disease and kshamatva is prevention and resistance against it. strength.Ayurveada believes in concept of longetivity² and seeking proper life³ hence it deals with four corners of "good-bad" , "happy-unhappy" perspective of life(ayu) leading to promotion of health.The concept of vyadhikshamatva(immunity) and bala(strength),oaj(exilir of dhatu) are such principles of ayurveda which lead to building newer horizon in Ayurvedic immunology.

The strategy adapted by the immune system in this battle against the wrong invaders have evolved such as to selectively destroy foreign molecules and cells without harming the host's own normal healthy cells.The weapons of the immune system include that kill or ingest infected or altered cells and soluble proteins that can neutralise ,immobilise ,agglutinate or kill pathogens Hence practice of building and preserving immunity bring the necessity on fire to the health care system.The immune response may be divided into two broad overlapping parts based either on time kinetics of response or on functional events .The early response or first line of defence occurs within minutes to hours of encounter with the foreign antigen and is termed innate or non specific immunity or non adaptive immunity.The delayed response occurs within days and is known as adaptive or specific immunity³.

Innate immunity includes phagocytosis of bacteria and other invaders by white blood cells,destruction of swallowed organisms by acid secretions of stomach and intestine,resistance of skin invasion by organisms.Similarly acquired immunity is mediated by humoral type governed by B-cell immunity (circulating antibodies) and second type of acquired immunity is achieved through the formation of large numbers of activated T-lymphocytes known as cell mediated immunity³.All these defence system entitled under the immune system is actually responsible for fight plight situation of any infectious interventions by viruses ,bacterias,toxins and even the unrecognised cancer cells. The stronger we build our natural defence mechanism the stronger we are ready for any dreadful invasion of virus in current scenario this mechanism is the need of hour for fighting covid 19.

Janpad means community and *udhwansa* indicates destruction,demolition. Therefore, the literal meaning of the term *Janapadodhwamsa* may be considered as a condition with massive demolition or destruction of people or community⁴. *Acharya Charaka*, called it *janapadodhwamsa*⁴, *Acharya Sushruta* called it *Maraka*⁵ and *Acharya Bhela* called it *Janamaar*⁶.In *Charak viman*, *Janapadodhwamsa* chapter deals with how community borne communicable diseases in large amount destroy the community .They manifest same signs and symptoms in the *janpad*(community).This gives clear relation of origin of epidemic at that time period and if going through the chapter you would love to see the well explained verses

by the sages about the common origin of diseases in absence of any similarity in two individuals of distant spaces. Corona virus which was a community borne disease in China is now the virus of the whole world.

Our acharyas gave a very logical explanation, even though the origin may vary between people of two places, 4 factors are common which are the reasons for the spread and they are air(*vayu*), water(*jal*), land(*desh*) and time(*kala*)⁷. Simultaneous manifestations of diseases having same set of symptoms eventually letting the destruction of a country or in case of covid 19 destruction of health system of many countries. These 4 factors cause the similarity and reason of spread even today. The common origin of covid 19 spread is the origin of sharing the same land (location) that is China where there was the outbreak which spread due to the spread of individuals to different countries. Then the infected people shared same air “more near more harmful”.

Foremost reason for *Janapadodhwamsa* has been described as *Adharma* (immorality) and the root cause of *Adharma* is said to be *Pragyaparadha* (delinquency of wisdom). *Susrutha* has described the mode of spread of infectious disease as *Oupasargika* or *Sankramika Roga*⁸ Most of the infections are spread from one person to other by *Prasanga* (sexual intercourse), *Gatra Samsarsa* (body contact), *Nishwasa* (inhalation), *Saha Bhojana* (taking food with diseased), *Saha Shayya* (sharing the bed), *Vastra* (clothes), *Maalya* (Garlands) and *Anulepana* (cosmetics).

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 are as follows⁹.

*Characteristics of *Dushit* (polluted) *Vayu* (air), *Jalaa* (water), *Desha* (land) and *Kala* (season)⁹:

s.no	Factor	Vikrita Lakshana (Altered characteristics)
1.	<u>Vayu (Air)</u>	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>Atishiita</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>Asatmaygandhavashpasiktapanshudhumophatamiti</i> (wind with unwholesome smell, mixed with gases, sand, ashes and smoke)
2.	<u>Jala (Water)</u>	1. <i>Vikrutgandhavarnarasasparsa</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>Upgatagunam</i> (devoid of natural qualities)
3.	<u>Desha (Land)</u>	1. <i>Vikrutgandhavarnarasasparsa</i> (Abnormal smell, colour, taste and touch)

		<ol style="list-style-type: none"> 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 due to bewilderment and agony. 8. Land where religion, truth, modesty, manners, conducts and other qualities of the inhabitants are absent. 9. <i>Kshubhitdirnajalashayam</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 coloured clouds.
4.	<u>Kala</u>	Features opposite, excessive or less to the features of normal course of season

Treatment plan for *janpadhowansa* by classic text:

Protection of one's own Vyadhikshamtwa (immunity) is the best course of treatment. To manage *Janapadodhvamsa* Acharya Charak had told in case of impairment of these factors if proper medicine administration is done, one may not be afraid of diseases. He advocated the use of *Panchakarma*, proper administration of *Rasayana* therapies is advised in the effective management of *Janapadodhvamsa* also advocated use of medicinal plants which had been properly collected and stored with full potency before the onset of the epidemic¹⁰. This also gives an indication that ayurveda believes in prevention before the outbreak. Hence the covid has taught us to be prepared till destiny for many coronas to invade the world in future.

To manage *Janapadodhvamsa* it is advised to enhance Immunity by using Rasayanas such as Chyavanaprash, Suvarnaprash, Agastya Rasayana etc. Susrutha mentioned Sthanaparityaga (Isolation) quitting the effected place, keeping away from the places where the disease prevails as the solution for the management of this pandemic¹¹. Avoiding Prajnaparadha (intellectual errors), following Dincharya (Daily Regimen), Ritucharya (Seasonal Regimen), Sadvritt palan (code of right conducts) Acharya Rasayana (behavioural therapy) Panchakarma procedure will prevent the etiology of diseases.

Discussion: *Ayurveda* the eternal life science from many centuries proved to be the most efficient tool in the health management system. It gives more weightage to the prevention than the cure. Vyadhikshamatwa and *Janapadodhwamsa* are the unique concept described in *Ayurveda* treatises. *Janapadodhwamsa*, which literally means demolition or destruction of people or community. Acharya Charaka, called it *janapadodhwamsa*, Acharya Sushruta called it *Maraka* and Acharya Bhela called it *Janamaar*.

The management principles for covid illness should be based majoritily on Jwarahara,ojovardhaka chikitsa and Rasayana.Shwasa is a main symptom in common pathological consideration of Pranavaha Srotas.The Chikitsasutra of Shwasa helps majorly in developing right protocols for targeted treatments. The drugs like Guduchi, Shunthi, Amla, Yashtimadhu, that are having antiviral, antiinflammatory and anti-pyretic properties and are useful in the treatment of viral fevers¹²

Boosting immunity not only prevents the spread of disease but also helps for quick healing in the diseased. Unlike other microorganisms the viruses invade healthy living cells in order to reproduce (Replication)¹³.It is very difficult to destroy the virus , The usage of Rasayanas are helpful in increasing T Helper cells which coordinates with immune response and produce antibodies and control the replication of pathological viruses.¹⁴The Corona virus infection leads to depletion of Ojas which ultimately leads to lack of Vyadhikshamtwa (Immunity). The body's own immune system is the best course of treatment.

Conclusion: Vyadhikshamatwa and *Janapadodhwamsa* are the unique concept described in *Ayurveda* treatises. Now a days the emerging diseases like covid 19 become most life-threatening can be considered as *Janapadodhwamsa vicar* which can be prevented and managed by Ayurveda. In context with covid19 different vaidya may suggest different treatment plan but the principles of ayurveda may remain the same that is use of proper panchkarma if needed and use of life saving commonly available which are properly collected rasayanas The mode of prevention of a disease is to maintain good health, by adopting right methods of Swasthasya Swastha Rakshanam i.e Dincharya, Ritu Charya, use of Rasayana therapy,Hita Ahara sevana which keeps Tridoshas in equilibrium and prevents one from susceptibility to any disease.Further if some suffers from these types of pandemic diseases, the concept of immune stimulation as well as Athurasya Vikara Prashamanam including very effective therapeutic formulations through Ayurveda can be used in the treatment of epidemic conditions.

One more principle works is that “ use of *ushna dravya* (hot potency)for disease originating from *sheeta gunas* (cold potency)and use of sheet dravya originating from *ushna gunas*.Use of *santarpan* in case of *apatarpaniya vyadhi* and use of apatarpan in case of *santarpaniya vyadhi*¹⁵.In case of covid *santarpaniya usna guna draya* may work. So in order to get rid of these epidemics/pandemics, we must have a healthy and timely diet (Hita ahar),following ideal Dincharya(Daily Regimen) and Ritucharya (seasonal regimens)which in turn helps in increase of immunity power (*Ojas*) and thereby maintains proper physiological entities which make us healthy and decreases the risk of viral infections

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