



Role of *Vyadhikshamatva* (Immunity) in COVID19

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Abstract:

Objective: The world was confronted with an illness 'COVID-19', caused by the novel coronavirus SARS-cov-2. This novel coronavirus is highly contagious and in just a few months has become a serious threat to human health all over the world. The mainstay in the management of corona viral infections has been supportive care, nutrition, and preventing secondary infections in the absence of any antiviral agent or vaccine. The best way of preventing COVID-19 infection is by enhancing an individual's body immunity. Hence the main objective of this study is to bring forward to the concept of immunity in *Ayurveda* for preventing COVID-19. **Data**

Source: Different *Ayurvedic samhitas* and text books, modern medical books, research papers in different journals and internet sources were referred to understand the concept of *ojas*, immunity and COVID-19 **Review Methods:** To compile the available literatures on immunity and COVID-19. To compile the importance

of *ojas* and *vyadhikshamatva*. To compile the importance of *Ayurvedic* concept of immunity in prevention of COVID-19.

Results and Conclusion: The best way of preventing COVID-19 infection is by enhancing an individual's body immunity. *Ojas* is considered as responsible for *Vyadhikshamatva* (immunity). An adequate exposition of the concept of *ojas* concerning immunity is essential during this COVID-19 pandemic.

Keywords: *Bala, Dhatu sarata, fever, natural immunity, Ojas, rasayana*

Introduction

A new strain of coronavirus family originated in Wuhan city of China in December 2019. This novel coronavirus is highly contagious and in just a few months has become a serious threat to human health all over the world. The WHO has recently announced COVID-19 as the third public health emergency of international concern. It has taken the lives of 7 lakh people all over

the world till August 1, 2020. Even developed countries are failing to control the increasing death rate due to COVID-19. The fatality rate of the virus is still under assessment. The severity and fatality of COVID-19 have been directly related to age and immune-compromised states. This coronavirus belongs to a group of RNA viruses, which causes diseases in mammals and birds. In humans, predominantly, it causes mild to lethal respiratory tract infections. The name of the corona denotes its structure crown with the surface projections. The human-to-human transmission via droplets or direct contact predicted incubation period of 6–14 days, and the reproduction number of 2.24–3.58 of COVID-19 is probably responsible for its rapid spread. Sore throat is one of the main features or the first clinical presentation of the COVID-19 infections among clinical features of the disease. Other symptoms are fever, myalgia, dry cough, severe dyspnea, Pneumonia, multi-organ failure, fibrosis of lungs. A small percentage of cases are asymptomatic, and some uncommon clinical manifestations include loss of smell. The mainstay in the management of corona viral infections has been supportive care, nutrition, and preventing secondary infections in the absence of any antiviral agent or vaccine. Enhancing the body's natural defense system (immunity) plays an important role in maintaining optimum health. *Ayurveda* is a system of lifestyle medicine that works improving one's vitality or modulating immunity and can, therefore, be used as a preventive approach. Several measures can be used to improve immunity against infections. This may be useful in this current scenario where we are facing a COVID-19 pandemic.

Vyadhikshamatva (Immunity)

In *Ayurveda*, we find all the fundamentals of immunity and their utility to prevent and to cure the disease, respectively. *Vyadhikshamatva* (immunity) is illustrated as the power of resistance capable enough to check the progress occurrence or recurrence of the disease.

Concept of immunity comprises two factors:

1. *Vyadhi uttpadha prathibhandhakatvam* – Resistance to the formation of diseases and resistance to causative factors of diseases. Maybe it is correlated with *sahajabala* or innate immunity
2. *Vyadhi bala virodhitvam* – Capacity to prevent the spread of diseases in the body and capacity of body blocking the diseases in its primary stage is called immunity.

Ojas is considered as responsible for *Vyadhikshamatva* (immunity). Due to the loss of *ojas*, persons are susceptible to other intercurrent diseases and superadded infections like COVID-19. Hence, an adequate exposition of the concept of *ojas* concerning immunity is essential

Ojas

It is an essence of seven *dhatu*s and is responsible for the strength of an individual. It is one among the seats of *prana*. It is itself synonymized as *bala*. It is an independent principle of *Ayurveda*, the principle it supports life, which protects life from various diseases.

Types of ojas

It is two types – *para* and *apara ojas*.

- *Para ojas*: It is the prime *ojas*, where *prana* resides. The quantity of *para ojas* is 8 drops in quantity and present in the heart, even a part of the destruction of this leads to death. It is white and yellowish red.
- *Apara ojas*: The volume is $\frac{1}{2}$ *anjali*, and it resides in the whole body. It is less important than *para ojas*. This circulates through vessels connected with the heart. It is vitiated in diseases such as *prameha* and *ojokshya*.

Importance of *ojas*:

According to *Charaka* at the time of conception, *ojas* is the essence of *shukra* and *artava*, which is called *garbha rasa*. This *garbha rasa* is a nourishing fluid, and it nourishes the growing embryo. It circulates in the fetus body and increasing the strength of *dhatu*. *Ojas* promotes cellular growth and prevents cellular destruction. It is an important site of *prana*, and if it is affected, it can cause sudden death. It is invisible like ghee in the milk.

According to *Dalhana dhatu*, *ojas* and *bala* are interdependent constituents of the body. *Ojas* enhances the stability of the *mamsa dhatu*. It also increases endurance power. It stimulates the functions of the five senses and mind. It also maintains the integrity of the body–mind–sense–soul. *Ojas* cannot be shown in the body, but its existence can be felt by its action on the body. The indications for existence of *ojas* in the body are the proper function of all *srotases*, body growth, stability of *mamsa dhatu*, proper functioning of five senses and the proper circulation of *rakta* and *rasa*.

In *Ayurveda*, infectious diseases have been considered under *Sankramika rogas*. Further, *Ayurveda* emphasizes prevention

first. For the prevention of diseases, immunity or *Vyadhikshamatwa* is a significant concept developed in *Ayurvedic* literature. Building a strong immunity is the need of the hour to fight this battle against the coronavirus. Many people with COVID-19 experience no symptoms or only mild symptoms, and about 80% of people recover from the disease without needing hospital treatment due to good immunity. With the view to explaining the *Ayurvedic* concept of immunity, an attempt has been made to arrange the classical literature systematically and screening them in the light of modern medical sciences.

Definition:

The definition of *Vyadhikshamatwa* given by *Chakrapani* confines the idea of all the natural, acquired, nonspecific and specific types of immunity against sorts of diseases, microbial, or nonmicrobial. According to him, the term *Vyadhikshamatwa* used by *Charaka* denotes the resisting power of the body, which reacts to arrest the progress, occurrence, or reoccurrence of the disease.

In his definition, two significant terms, *vyadhibala* *virodhitva* and *vyadhutpada* *pratibandhakatva*, have been used in a particular order. The first term denotes the natural immunity, generally of nonspecific type, which attempts to defend the body in the first occurrence of any disease. Similarly, the second term indicates that when the natural immunity once being thus experienced in any way, i.e., vaccination, it often succeeds even check the reoccurrence

or occurrence of certain diseases also. There is a similarity in the views of *Chakrapani* and William Boyd on the concept of immunity. As regards the first term, he says: Immunity is only one of the weapons in the basic struggle of life and denotes the resistance which an organism offers against aggression by a parasite. Concerning the second term, he states that – in the broadest terms – the development of immunity is a process by which the body learns from the experience of past infections to deal more efficiently with subsequent ones.

Ojas and its role in body resistance:

In *Ayurveda*, it is the *ojas* that has been considered to play a vital role in the defense mechanism of the body. As regards the kinds of *ojas*, *Hemadri* says that the followers of medical science take the term *ojas* in following multiple senses.

1. *Dhatu tejo rupa ojas* is present in all the tissues of the body. This indicates the immune mechanisms present at tissue level like those due to tissue macrophages, mast cells, and other white blood cells of tissue pool
2. *Rasatmaka ojas* is the form of *ojas*, which moves along with the *rasadhatu* and circulates all over the body through the cardiovascular system. All WBCs and other substances related to the immune system like those of the complement system and antibodies circulating in the intravascular compartment can be included in this
3. *Shukramala rupa ojas* is the form of *ojas* which enters the fetus to protect during intrauterine life.

Immunoglobulins, which cross the placental barrier to enter the fetal circulation, can be included under this category

4. *Jivasonita rupa ojas* is specific for blood cells. All hypersensitivity reactions involving blood cells can be assumed to be resulting from the malfunctioning of this form of *ojas*.

Acharya Bhela has enumerated the 12 seats of *ojas*, such as *shonita* (blood), *mamsa* (muscular issue), *medas* (adipose tissue), *asthi* (osseous tissue), *majja* (bone marrow), *shukra* (genital secretion), *shukla* (some watery secretions of the body), *sweda* (sweat), *pitta* (gastrointestinal secretions), *shlesma* (mucoïd secretions), *mutra* (urine), and *phurusa* (stool). It is a well-known fact of modern medicine that secretions such as salivary, nasal, lacrimal, laryngopharyngeal, bronchial, intestinal, urethral, vaginal, and seminal and excretions such as urine, stool, ophthalmic, cerumen, and sweat also contain a bacteriolytic substance called lysozymes. The 12 seats of *ojas* as enumerated by *Bhela* mostly cover up all these secretions.

The relation between ojas and bala:

Shlesma in the normalcy gives strength to the body and is known as *bala*. The *bala* itself is considered as *ojas*. *Bala* and *ojas* derive their strength from *shlesma*. *Acharya Charaka* and *Shushruta* also give great importance to the body resistance or *bala*. According to them prevention and recovery of body health depends on *bala* or body resistance. Just like modern

medicine, *Ayurveda* has classified the *bala* into three main types, such as *sahaja* (natural or innate), *yuktikruta* (acquired or induced), and *kalaja* or periodic, which varies according to the different seasons and age groups of individuals.

1. *Sahaja-bala* – Physical and mental strengths are present naturally by birth. Certain people are strong by birth due to their excellence of *dhatu*s. This depends on the healthiness of *shukra*, the excellence of time, and place. The modern subdivisions of natural immunity, such as species immunity (*jathiniyatha*), racial immunity (*kulaniyatha*), and individual immunity (*pratyatmaniyat prakritis*) may also be incorporated in *Ayurveda*. *Charaka* says that interindividual variations are dependent on the variation of species, race, climate, season, age, and personal habits. While defining the term *prakruta* or *sahaja*, *Chakrapani* expresses a similar view to modern science. The term *prakruta* or innate would indicate that the response to infection was determined solely by the inherited qualities of the animal and was not influenced by any prior events in its lifetime
2. *Kalaja bala* – This strength is based on the division of seasons and age of the person. In seasons, the strength of human beings increases during *visarga kala*. According to age the person naturally has less strength in childhood and old age
3. *Yukthikritha bala* – This strength is based on combination of diet and other regimen. This strength is

attained by proper combination of the intake of wholesome food like flesh, ghee, etc. and other regimen like correct exercise, proper rest and also the use of rejuvenating and strength-enhancing drugs. It is a well-known fact in modern sciences that the diet rich or poor in proteins, vitamins, and minerals and also the work of nonfatiguing or fatiguing in its consequences certainly bring a good or bad effect on body resistance, respectively.^[22]

Grades of immunity:

It is generally seen that people enjoying the same surroundings show nonoccurrence or occurrence with different intensities, such as mildness, severity, and slow or rapid onset of diseases. This variability in manifestations seems to be indirectly dependent on the high or optimum (*pravara*), moderate (*madhya*), and low (*avara*) grades of individual resistance.¹The indications of the *pravara bala* is well-nourished muscles, very compact body, unobstructed movements, clear sense organs, clarity of voice and complexion and normal functioning of motor and sensory organs which gets digested easily and gets absorbed to the fullest extent.

Assessment of immunity:

Although nowadays it could be possible to measure the immunity by calculating the phagocytic power, antibody contents, and serum protein level, in those ancient days, there was no any other way to assess the grades, except to account a total picture of the man in the following respects – body constitution, pathological state, significant development of the body ingredients, compactness of the body, body measurements (somatometry), adaptability,

psychic nature, the capacity of food assimilation, the capacity of physical work, and the age.

Ayurveda emphasizes the people having good immunity and people who have poor immunity or people who lack immunity. *Dhatu sarata* (tissue excellence) is a quality assessment of seven *dhatu*s. *Dhatu* with excellent or optimal qualities is called *Dhatu sarata*. It is divided into three types: *uttam sara dhatu* (best quality), *madhya sara dhatu* (medium quality), and *asara sara dhatu* (low quality). *Uttam dhatu sarata* has good strength and good immunity. *Asara dhatu*s are tissues with poor strength and immunity. Hence, they are prone to diseases. *Dhatu sarata* is useful in assessing the strength of each *dhatu* and the immunity of a person.

Measures to maintain or upgrade the natural body resistance:

Significance of natural immunity:

Natural immunity which is generally nonspecific has got a greater relative value and wider range than the artificial one, while acquired immunity which is generally specific and variable in durability has got comparatively a limited scope. Only a few of the diseases can be prevented by artificial immunization. It is the natural immunity which tries to protect the body against almost all diseases. Moreover, it is natural or nonspecific immunity which forms the first lines of defense. If these lines of defense are broken, then the body brings into play the second line of defense in which the immune mechanism occupies an important position. We can have greater safety if we can maintain or raise our natural immunity.

Seasonal regimen (*Rutucharya*):

The strength and luster of persons knowing the suitable diet and regimen for every season and practicing accordingly are enhanced. The regimen which is wholesome to everyone concerning diet and practices is *rutu charya*. The principal treatment of the derangement of the season is stated as old herbs, boiled water, and *rutu sodhana* (*pancha karma*).

*Codes of conducts of life (*Sadvritta*):*

One should clean excretory orifices and feet frequently. One should cut hair, mustache, body hair, and nails thrice in 15 days, wear clean good cloth every day, comb the hair, and apply oil to head, ear, nose, and feet every day. One should smoke medicated *dhumapana*. One should avoid dirty cloths, bones, thrones, impure hair, grass, garbage, ash, piece of mud pot, and places of bath and worship. One should not yawn, sneeze, and laugh without covering mouth and should not itch the nostrils and teeth. One should not have relations with women, friends, and servants having bad contact. One should not take food without taking a bath, washing hands, feet, and face, without clearing mouth, and surrounded by bad people, dirty. During auspicious ceremonies, one should not clean the nose. One should wash lips and feet with water.^[33]

The WHO and the Government of India have prescribed the same codes of conduct for preventing the contamination of COVID-19.

*Balanced diet (*ahara*):*

Food is responsible for the growth, development, and enhancement of *ojas*. No medicine is equivalent to food. It is possible to make a person disease free with just a proper diet. *Dhatu sarata*, balanced state of *doshas*, the health

of *srotasas*, and *agni* must be maintained with proper diet and regimen to maintain immunity. A balanced diet helps in increasing digestive power and proper formation of *ahara rasa*. This *ahara rasa* contains nutrients of seven *dhatu*s and maintains the proper body strength and immunity. The formation of *ojas* depends on the qualities of *dhatu*s. Therefore, food and digestion play an important role in the formation of *ojas*.

The concept of a balanced diet was mentioned in *Charaka samhita*, underthings which are always conducive for health and should be consumed regularly for the maintenance of health. One should take *shastika*, *saali* rice, *Mudga* (green gram), *Saindhava* *lavana* (rock salt), *amalaki* (gooseberry), rainwater, milk, ghee, meat of animals residing in the dry land, *yava* (barley), and *madhu* (honey) regularly. These should be consumed daily for the maintenance of health and prevention of diseases. Here, *saali*, *shastika*, *yava*, and *madhu* can be related to carbohydrates, *mudga*, *jangala mamsa rasa*, and milk to proteins, ghee for fats, *amalaki* for vitamins, and *saindhava* for minerals. According to *Vagbhata*, *jivaniya gana* drugs, milk, ghee, meat juice and rejuvenating drugs are useful in *ojokshaya*.¹

Rejuvenation therapy (Rasayana chikitsa):

Immunity and strength of the body can be improved by *rasayana chikitsa*. The *rasayana chikitsa* is used in the prevention and cure of diseases as well as the prevention of old age. *Kashyapa* has mentioned the concept of *balarasayana* to enhance immunity. *Asara dhatu*s should be strengthened by *rasayana chikitsa*. *Chakrapani* holds the view that no such types of diseases can occur if effective *rasayana* is taken beforehand.

Best immune-modulator *rasayanas* mentioned in *Ayurveda* – milk, ghee, honey, *gudhuchi* (*Tinospora cordifolia*), *amalaki* (*Emblica officinalis*), *haridra* (*Curcuma longa*), *ashwagandha* (*Withania somnifera*), and *yastimadhu* (*Glycyrrhiza glabra*).

References

1. Saxena SK, Kumar S, Maurya VK, Sharma R, Dandu HR, Bhatt ML. Current insight into the novel coronavirus disease 2019 (COVID-19). *Nature Public Health Emerg Coll* 2020;4(2):1-8.
2. Li X, Geng M, Peng Y, Meng L, Lu S. Molecular immune pathogenesis and diagnosis of COVID-19. *J Pharm Anal* 2020;10:102-8.
3. Chakrapani on Charak Samhita, Sutrasthana, Vividhaashithapitiyaadhyaya, 28/7.
4. SushrutaSamhita, Sutrasthana, Doshadhatumalavridhiksayavijnaneyam, 15/19.
5. CharakSamhita, Sutrasthana, Dashamahamooliyaadhyaya, 30/8.
6. Dalhana on Sushrut
7. Samhita, Sutrsthana, Doshadhatumalavridhik sayavijnaneeyam, 15/19.
8. Ashtangahrudhya, Sutrasthana, 11/37.

9. Rao MV. A Text Book of Svasthavrtta. 1st ed. Varanasi: Chowkhambha Orientalia; 2007.
10. Charak Samhita, Sutrasthana, Kiyantashireesiyaadhyaya, 17/74.
11. Ranade S, Deshpande RR, Chobhe S. A Textbook of Sharira-Kriya Vijnan, Part-II, Reprint edition. Delhi: Chowkhambha Sanskrita Pratishthan; 2009. †
12. SushrutaSamhita, Sutrasthana, Doshadhatumalavidhiksaya vijnaneeyam, 15/24.
13. Gupta LP. Essentials of Ayurveda, Reprint edition. Delhi: Chowkhambha Sanskrita Pratishthan; 2001.
14. Kumar SM. Concept of Vyadhikshamatva (immunity) and its relationship with Bala (Vital strength). Global J Res Med Plants Indigenous Med 2013;2:386-91. †
15. Arundutta and Hemadri on Ashtanga Hridayam, Sutrasthana, Doshadivijnaniya adhyaya, 11/17. Reprint edition, Varanasi: Chaukhamba Surbharati Prakashana; 2010. †

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