

THE CONCEPT OF IMMUNITY FROM AN AYURVEDIC PERSPECTIVE

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ABSTRACT

The very aim of Ayurveda is longevity of life but this is possible only if one is healthy and his/her body's disease defense mechanism is efficient. Ayurveda has laid down several *siddhantas* (principles) highlighting ways to acquire a disease free, healthy body and mind. Specific concepts like *Vyadhikshamatwa*, *trividh bala: sahaja, kalaja and yuktikrit*, *Vyadhivighatkar bhavas, ojas* are reiterations that Ayurveda discussed an inherent and acquired 'Disease defense mechanism.' It has stressed on the relation between good food (*ahaara*), body tissues (*dhatu*), quality of *oja* and the body's disease defense capacity. It has mentioned concepts like '*Rasayanas*' to ensure health. Ayurveda like modern might not have described about the components of immunity but it has definitely highlighted the role of an existing defense mechanism and how our food habits, *oja*, health seeking behavior ensures freedom from diseases. Today, urban life style has ushered in a range of immune compromised disorders due to a low immune status of all age groups. Moreover, diseases like cancer and such immune deficiency disorders are statistically on the rise. In such a backdrop of reality, the need arises to look into the Ayurvedic perspectives of health and disease defense mechanism concurrently with modern perspectives of immunity.

Keywords: Immunity, *trividh -bala, oja, vyadhikshamatwa*.

INTRODUCTION

Immunity means the existing biological defense to avoid infection, diseases and unwanted biological invasion. Our immune system detects a wide variety of agents known as pathogens, viruses, parasitic worms. It not only distinguishes them from the organism's own health tissue but also plays a protective role against infections by virtue of the immune mechanism. Poor die-

tary habits can cause nutritional deficiency which weakens our immune system. In Ayurveda, the concepts like *Vyadhikshamatwa, Bala: Sahaja, kalaja and yuktikrit, oja, vyadhi vighatkar bhavas,ahaar sampat, sharir sampat ,rasayanas* and other such perspectives relating to disease defense mechanism has been postulated. Modern concepts like: active immunity, constitutional or

innate, cell mediated, humoral, specific and nonspecific immunity, passive immunity very vividly describes the body's defense mechanism.

AIMS AND OBJECTIVES: To study the concept of Immunity from an Ayurvedic perspective highlighting modern concepts of immunity.

MATERIALS AND METHODS:

The whole study is based on a literary review collected from Ayurvedic Samhitas and Modern textbooks.

Thus the study is carried out under following heads:

1. Immunity according to Modern
2. Concepts and perspectives of disease defense and health in Ayurveda.

1. Immunity according to Modern^{1,2}

Immunity is synonymous with resistance, defense, protection from diseases or injuries. The immune system plays a protective role against infections. It is a lymphocyte mediated mechanism. Any non self matter i.e bacteria, virus, tumour, e.t.c is an antigen and it generates immune response when introduced in the body. This immune response originates from the following components of immune system:

- i. Innate immunity- It is the first line of defense without antigenic specificity and its components are 'Humoral' comprised by complements and 'Cellular' consisting of neutrophils, macrophages and NK (natural killer) cells. Inflammatory response too is included here.
- ii. Adaptive immunity-It is antigen-specific its components are 'Humoral' com-

prised by antibodies formed by B cells and 'Cellular' mediated by T cells

iii. Passive Immunity-Herein there is artificial immunization with antibodies without direct contact with pathogen. Its components are immunological memory, active memory, identification of antigen on fresh invasion by memory cells (produced by sensitized lymphocytes).

Concepts and perspectives of disease defense and health in Ayurveda.^{3,4}

Concepts in Ayurveda regarding disease defense mechanism found in different Classics are:

i. Concept of *tribidh bala*⁵

As per Charak, the *tribidh Bala* withholds the body i.e *Sharir dharak upastambh*. It is said to have been acquired from food and other pillars of body (*upastambh*). These trividh balases are: *sahaj, kalaj and yuktikrit*.

Sahaj bal- It is *prakrita* i.e innate. It is present at birth naturally without any role of external factors.

Kalaj bal-acquired according to the seasons acquired from food, habits (*ahaar,vihaar*) and has prevalence gradient varying in different age groups: childhood (*balavastha*), *yuva, vridhdha* (old age).

Yuktikrit bal-It is that which is acquired through nutritious diet (*bal karak ahaar*), healthy physical activity (*chesta vihaar*). *Yuktikrit* means nourishing food and balanced physical activity that aims at nutrition and energy. e.g *Ghee* and *mamsa* has been mentioned regarding inclusion in diet.

ii. Concept of *oja*⁶

In Ayurveda, *oja* has been regarded as the hallmark of health. It is also called *bala*. It is the final essence of all the *dhatus* (body tissues) beginning with *rasa* and ending with *shukra*. *Oja's* status is characterized by the growth and overall health of an individual. How prone or susceptible a person is to diseases, the frequency of diseases in an individual, surge in the disease process, all this is determined by the condition of *oja*. Its abnormality invites ailments. In this context, three terminologies have been postulated: *Ojo Vyapad*-vitiation of *oja*, *Ojo Visramsa*-displacement of *oja* and *Ojo-kshay* wasting.

iii. Concept of *vyadhikshamatwa*⁷

Ayurveda mentions about a disease defensive capacity (*vyadhikshamatwa*). It varies from person to person according to food consumption (*ahaar sewan*) and the influence of factors like seasonal variations (climate change, *kal viparyay*), *pragyaaparadh*, *atiyog*, *ayoga*, *mithyayog of shabda*, *sparsha*, *rupa*, *rasa*, *gandha* and *parinaam*. Because of these factors an individual's disease susceptibility and thereby body's disease protecting capacity (*vyadhikshamatwa*) varies. iv. Concept of *chestayogaja*^{8,9,10,11}

It refers to proper exercises or physical activity and proper relaxation. *Yogajam* also denotes the use of *Rasayana* to attain *bala*. The role of diet and physical activity in disease prevention has been reiterated with the concept of 'Arogyaa Sambhav' wherein it is mentioned that just as bad food and physical inactivity causes diseases, similarly good diet and proper physical activity assures freedom from ailments.⁸ Charak has emphasised on the relation between good food,

good physical built and thereby accomplishment of *prashasta purush*, *samamamsa pramanam*, *sama sanhanan* and *vyadhikshamatwa*.^{9,10} Seasons influence *bala* as pathogenic factors require some favourable conditions to flourish and that assists or hampers defense from a disease. It is mentioned that strength is best in early morning, spring and youth than in evening, summer and old age.¹¹

v. Concept of *vyadhibal virodhitwa*, *vyadhipratibandhakatwa*¹²: This refers to variation in the disease defensive mechanisms of different individuals. It throws light upon the context of how in spite of good diet, some people fall sick and how some people remain fit and disease free despite their poor food habit. It reiterates that there is an inherent disease protective mechanism which constantly plays a role.

vi. Concept of *vikaar vighaat bhava*¹³: This refers to those factors (*bhavas*) that prevent the occurrence of diseases. They are termed *vighatas* of *vikaar* i.e factors arresting disease process. Here it is said that diseases are caused due to the absence of such *vikaar vighat bhavas* i.e *vikaar vighaat abhaav* where *abhaav* means absence. In this context, some perspectives have been placed:

- No occurrence of diseases (*Vikaar ajananam*)
- Delayed disease occurrence (*Chiren chajananam*)
- Disease occurring in minute form (*Anuvikaar jananam*)
- Diseases without all clinical manifestations (*Asarvalingavikaarjananam*)

Herein, it is postulated that the disease pathogenesis and ultimate manifestation is arrested i.e. *nidana*, *dosha*, *dushya samurchana* in Ayurvedic terms is not allowed or is delayed and hence disease is prevented or manifestation is in mild form or incomplete. i.e. *nirbal rup* of disease due to 'Paraspar na anubandhayate' of *nidan*, *dosha* and *dushya* i.e. all the factors responsible for the disease manifestation are not dominant enough to cause a full blown disease. Here different permutation and combinations of *nidan*, *dosha*, *dushya* have been given and the presence of different disease preventive factors (*Vikaarvighatbhavas*) in different individuals have been mentioned.

vii. Concept of *bal vridhhi karak bhava*¹⁴ : These refers to factors responsible for increasing *bal*. Herein, 'Ahaar sampat', 'Satmya sampat' is stressing upon food/diet. It can be directly acquired from food having immune enhancing ingredients, compatible and good food eating habits. Mentioning the *bal vridhhi karak bhavas*, importance of *kal bal*, *garbha (bija, kshetra gun sampat)* have been stressed. That's perhaps the reason why diet, food regimen for a pregnant woman has been highlighted in Ayurveda.

DISCUSSION AND CONCLUSION

A few points to ponder upon highlighting modern concepts are:

1. The *trividh bala* and the types of Immunity: The *Trividh Bala* i.e. *Sahaj, kalaja and Yuktikrit bala* can be understood just as how modern postulates the concepts of 'Constitutional or Innate' immunity, 'Temporal and Acquired' immunity. Herein; *Sahaja*

could be compared to Constitutional or Innate immunity. *Kalaja, Yuktikrit* could be compared to Acquired immunity

2. *Vyadhikshamatwa* and immunity: Concept of *Vyadhikshamatwa* postulated by Ayurveda is not different from the modern concept of Immunity which is a state of resistance to a disease through an immune response mechanism in immunodeficiency disorders, hypersensitivity reactions, autoimmune diseases, e.t.c.

3. Theory of Lymphocytes' role in immune mechanism and Ayurveda's concept of *oja* and *Ahaar sampat*: It is worth understanding that lymphocytes responsible for cell mediated and humoral immunity are nothing but leucocytes which is a component of blood (a body tissue). In Ayurveda, *oja* is called the essence of all *dhatu*s (tissues). *Ahaar* or food has an indispensable role in the formation of healthy tissues and *Oja*. Thus, *ahaar sampat* has been very aptly stressed upon as a component for a disease free life. Quality of blood depends on the quality of food intake, its nutrient contents.

Thus, Ayurveda was never in oblivion regarding an immune mechanism. *Vyadhikshamatwa, oja, bal vridhhi karak bhavas, vyadhi balvirodhitwa, vyadhipratibandhakatwa, vyadhivigrahatkar bhavas* and how these factors play a role in disease defense is highlighted in Ayurveda. The variation of this mechanism from person to person and the role of predisposing factors endorses that an underlying disease fighting and health maintenance process is active in every individual's body. Food, age, time, weather, season constantly

influences our body. Ayurveda has stressed upon 'Good food behavior' and has thus termed it as 'Ahaar Sampat'. Inclusion of *Rasayanas* in our diet ensures good health quotient. An *Oja saar purush* is deemed to be free from ailments. All these are repeated reiterations of the fact that modern concept of Immunity and Ayurveda's concepts on health maintenance and disease prevention are perspectives on the same context i.e 'Disease Defense Mechanism and Health.'

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