ROLE OF RASAYANA IN IMMUNE DEFICIENCY DISEASES

Sunil Kumar¹*, Ravi Shukla², Rapolu Sunil B³, Ashutosh Tiwari⁴

¹Junior Resident-III year Dept. of Swasthavritta and Yoga, Fac. of Ayurveda, IMS, BHU
²Junior Resident-III year Dept. of Kriya Sharira, Fac. of Ayurveda, IMS, BHU
³Junior Resident-III year Dept. of Kriya Sharira, Fac. of Ayurveda, IMS, BHU
⁴Junior Resident-III year Dept. of Rachana Sharira, Fac. of Ayurveda, IMS, BHU

ABSTRACT
Immune deficiency diseases are one of the serious global health problems leading to increased mortality, morbidity and economic burden. Immunodeficiency is a condition under which the body’s immune system loses the ability to effectively fight infectious diseases. It can be acquired by an imbalance or lack of nutrients in the body, drugs used to fight specific diseases that attack the immune system. Modification and balancing immune response offers a huge potential for promotion of health by immunomodulators.

Ayurveda conceives a unique concept of Ojas, which is the quintessence of the seven dhatus and is responsible for vital strength of the body and resistance against the disease i.e. immunity. Rasayana increases the essence of each Dhatu, starting from Rasa and enrich Ojas. Thus there is regeneration of cells and body tissues leading to increased Vyadhikshamatva (immunity). Rasayana also act as immunomodulators, normalize the immune system and equally related with the immunotherapy by regulating or the balancing immune system. Immunomodulators bind to the IgE antibody thereby preventing from binding to receptor sites on mast cells and basophil cells. Our daily food items and various drugs like Shilajatu (Mineral pitch), Centella asiatica (Mandukaparni), Tinospora cordifolia (Guduchi), Emblica officinalis (Amalaki) etc. interact with the functioning of immune system. Such interactions may help to balance and stabilize our immune responses and to mitigate immune related physical disorders. Thus Rasayana help to increase life force (Ojas) and vitality, supports immune system, optimizes general health, and helpful for the promotion of health of immune-deficient individuals.

KEYWORDS: Immune deficiency diseases, Immunomodulator, Ojas, Rasayana, Vyadhikshamatva.

INTRODUCTION
Immune deficiency is a state in which the immune system’s ability to fight against infectious diseases is compromised or entirely absent. Immunodeficiency diseases are one of the serious global health problem fail to adequately protect against illness, and lead to the mortality and the morbidity. It can be caused by an imbalance or lack of nutrients in the body, drugs used to fight cancer or specific diseases that attack the immune system such diseases include acquired
immunodeficiency syndrome (AIDS), certain types of cancer, and lymphomas. Common symptoms of immune deficiency include extreme susceptibility to contagious illness or allergy, fatigue and loss of energy, respiratory disorders, digestive disorders, fever, loss of appetite, and a general feeling of weakness and lethargy. In Ayurveda some conditions like Rajayakshma, Ojo Kshaya, Sannipata jwara, diabetes mellitus and malnutrition, etc. are the immune-deficient, where loss of Ojas is a constant feature, and people are susceptible to various recurrent infections, and other interrelated degenerative diseases. Ojas has been considered vital in the defense mechanism of the body. It is the quintessence of the seven dhatus and present in all the tissues of body and its complete loss leads to the degeneration of body resulting in death.

Ayurveda, an ancient system of medicine that emphasizes harmony between mind, body and spirit, can help treat immune deficiency diseases. Rasayana therapy is indicated for the prevention as well as for curing of such type of diseases. So it is use in chronic and severe debility of the body secondary to major illnesses including cachexia associated with Rajayakshma, diabetes mellitus, etc. It is emphasis on restoration and revitalization, strengthening of tissues and body systems, Concentration on mental and spiritual health. Rasayana therapy is the frontline therapy employed to treat Ojas or immunodeficient disorders, in such a way that it increases the essence of each Dhatu, starting from Rasa and enrich Ojas. Taking Rasayana is helpful to increase the immunity of person to keep him away from diseases. Thus there is regeneration of cells and body tissues leading to increased Vyadhikshamatva (immunity). The person becomes healthy and strong. Some rasayana like Shilajatu (Mineral pitch), Centella asiatica (Mandukaparni), Tinospora cordifolia (Guduchi) and Emblica officinalis (Amalaki), are well known for their Immuno-modulator and antioxidant properties. Immunomodulation can be an important attribute in the strengthening of immunocompetence in a controlled manner would help in the disease management.

CONCEPT OF IMMUNITY IN AYURVEDA

The body’s resistance is importance in the health of living beings, for prevention and rapid recovery from diseases. Ayurveda emphasizes the promotion of health through the strengthening of host defenses, to act as a resistive force against physiological extremes as well as opportunistic ailment. This force computed, as regards everyday wellness termed as vyadhikshamatva. Principles of Vyadhi Ksamatva in Ayurveda are free from diseases and lead healthy and prosperous life. If people exposed to a given disease, only some will be afflicted, while others are left without any effect. This phenomenon itself illustrates that the pathogenic
factors require some essential favorable conditions to grow vigorously and that the individual is susceptible to the disease. In the absence of such conditions, an individual’s resistance can eradicate the disease, preserving and maintaining a balanced condition. This resistance power of the body, which prevents the development of diseases, is called as Immunity or VyadhiKshamatva. VyadhiKshamatva in Ayurveda is not merely immunity against a specific infectious agent or disease. Rather, VyadhiKshamatva implies a resistance against the loss of the integrity, proportion, and interrelationship amongst the individual's doshas and dhatus. Resistance to disease or immunity against disease is of two kinds, one which attenuates the manifested diseases and other prevents the manifestation of diseases. Thus, it is clear that concept of immunity was familiar at that time and has been analyzed in detail in form of Vyadhikshamatva. Various factors which contribute towards vyadhiKshamatva are normal doshas, equilibrium state of dhatus, normal agni, patency of srotas (microchannels) etc. Equilibrium state of dhatus (bodily tissues) is health and gives rise to aarogyam that is a healthy state of being. VyadhiKsamatva in Ayurveda also called as bala, which is three types Sahaja Bala, Kalaja Bala, Yuktikrita Bala. Sahaja Bala is inherited which comes from the parents. We cannot change our genetic makeup, but we can definitely strengthen our immune system to fight against diseases. Kalaja Bala, the time of day, season, and one’s age are important factors for enhancing immunity. Yuktikrita Bala represents acquired immunity.

MODE OF ACTION OF RASAYANA DRUGS

Majority of rasayana drugs works on multiple areas and helps in achievement of vyadhikshamatwa through its dipana, pachana, medhya, antioxidant, adaptogenic, and immunomodulators properties.

This hypothesis has been proved scientifically by Dhanukar et al. Pharmacology of some rasayana drugs has been given below:

Yashtimadhu (Glycyrrhiza Glabra): Enhance the macrophage membrane function.

Guduchi (Tinospora cordifolia): Inhibit the lipid peroxidation and superoxide and hydroxyl radicals in vitro.

Amlaki (Emblica officinalis): Strengthen the defense mechanism against free radical damage induced during stress.

Haritaki (Terminalia Chebula): In immune-modulation studies, humoral immunity was enhanced where T-cell counts remained unaffected in the animals, but cell-mediated immune response was stimulated.
DISCUSSION

The immune system has connections with a number of other organs and can directly or indirectly influence the actions of these organs. The function of the immune system is to protect our bodies against foreign invaders. It is plays a pivotal role in the pathogenesis of immune deficient diseases, autoimmunity, and in allergy. The invaders can come in the form of actual foreign bodies such as bacteria, viruses, fungi or parasites, collectively called pathogens. While in the immune deficiency diseases the immune system of the body is weakened, and people predisposes one to virtually many type of illness. Aim of Ayurveda is to provide good health in holistic ways, so that people can engage in achieving the real goal of life. It emphasized on the prevention of health with a concept of strengthening host defense against diseases and curing of disease of individuals. The concept of immune stimulation through Ayurveda has been used successfully in the treatment of immune-compromised conditions like acquired immune deficiency syndrome (AIDS), TB, cancer, disease. The rasayana therapy or rejuvenation therapy makes it easily possible with its remarkable benefits on immunity, health, longevity, regeneration of cells and tissues in the body. The people of ancient times led long, disease free and vigorous lives with the help of rasayanas. It increases strength, immunity and vitality. Rasayanas are General health tonic Supports immune system Optimizes physical performance Enhances rehabilitation of muscle, bone and nerves helps acclimatize to newer. In rasayana therapy the body constituents are prepared to adapt to a selective tissue endowment program. This concept in modern scientific understanding would mean the enhancement of immune responsiveness of an organism against pathogens by activating the immune system with immunomodulatory agents\(^2\). Rasayana therapy provides tremendous potential to be tapped for immunomodulatory activity. By acting primarily on the immune system like macrophages, the simple chemical of the herbs through the activating cytokine network could produce all the actions that have been attributed to them. The immunomodulators action of rasayana brings alteration in the status of immune system\(^1\) i.e. equally related with the immunotherapy. Immunomodulators corrects the immune systems that are out of balance. The benefit of immunomodulators is their ability to stimulate natural and adaptive defense mechanisms\(^4\). Most probable action of immunomodulators is bind to the IgE antibody thereby preventing from binding to receptor sites on mast cells and basophil cells. It is now recognized that immunomodulation could provide an alternative or complement to conventional chemotherapy for a variety of diseased conditions especially in the case, when host defense mechanisms have to be activated under the conditions of impaired immune
Responsiveness. Rasayanas also increases the ojas in the body that further stimulates bala or immune system to function in a better and effective way\textsuperscript{15}. Rasayana is made up of rasa and ayana, rasa primarily means essential seven vital tissues, rasa (lymphatics), rakta (blood), mamsa (muscle), meda (adipose tissues), asthi (bones), majja (bone marrow and nervous tissue), and shukra (reproductive elements). Ayana means the path or channel for the same. So, rasayanas are those that bring about proper uptake, growth, and improvement of essential seven vital tissues, which is ultimately increase the ojas. In a research (Brahma and Debnath, 2003), have been found to be a rich source of antioxidants property of rasayana drugs which act inside the human body by modulating the neuro-endocri-no-immune systems\textsuperscript{16}.

**CONCLUSION**

Rasayana therapy is a specialized section of Ayurveda, which mainly deals with the disease prevention and promotion of health by revitalizing the metabolism and enhancing the power of immune system. Rasayana drugs are not only immunomodulatory activity, but also have other effects such as immune-stimulation, antistress, antioxidant, enhancing cellular detoxification mechanisms, repair damaged non-proliferating cells, inducing cell proliferation and self-renewal of damaged proliferating tissues, and replenishing them by eliminating damaged or mutated cells with fresh cells. Modification and balancing such immune responses with immunomodulatory, antioxidant, and increase the ojas rasayana offer a huge potential for the development of health promotion and cure of diseases. So rasayana drugs should be used as a compulsory measure for immune deficient diseases.

**REFERENCES**

Sunil et al. / Pharma Science Monitor 5(2), Apr-Jun 2014, 1-6


For Correspondence
Dr. Sunil Kumar
Email: drsunilbhu2011@gmail.com