



EFFECTS OF RASAYANA IN INFECTIOUS DISEASES WSR TO GUDUCHI

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ABSTRACT

Rasayana is a selected branch of management controlling the primary aspect of the body viz. Dhatus, Agni and Srotas. Rasayana therapy boosts the immune system. The immunity of a person is increased and keeps him away from diseases due to regular use of Rasayana. The person becomes healthy and strong. Thus Rasayana helps in obtaining the optimum nourishment to the Dhatus. With the help of Rasayana, one can attain longevity, returns to youthfulness, strength, & gets sharp memory, mental power & freedom from disease. Disease is the outcome of combination of vitiated Dosha and Dooshya which happens when Vyadhikshamatwa (immunity) is decreased. Because of the lifestyle and changing environment, the immunity of people is decreasing day by day making them prone for getting afflicted with infectious diseases. The present day infectious diseases like Dengue, H1N1, AIDS, TB, Covid-19 etc. are only due to lowered immunity. Rasayana is believed to promote the process of Dhatuposhana and enrich Ojas leading to Vyadhikshamatva. Guduchi is considered one of the best Rasayanas and is unusual in its potent versatility. The significant actions of Guduchi include promoting Bala (cellular and humoral immunity), Agnideepana, cures fever, eliminates Ama (metabolic wastes and toxins), skin diseases, Upper respiratory tract infections, gout etc. It can be used as Swarasa, Kashaya, Satwa for internal use or as paste for external application in skin diseases to get the desirable effect.

KEYWORDS: Ayurveda, Rasayana, Infectious diseases, Guduchi, Immunity Booster, Vyadhikshamatva.

INTRODUCTION

Rasayana is one of the unique branches of Ayurveda & it is suggested to increase Ojas. Modern scientific observation's on Rasayana shows that rejuvenating drugs can protect the body against detrimental effects of the atmosphere in which we survive, by augmenting the individual's capability to fight against disease-carrying organism through stimulating the immune system. According to Ayurveda, Rasayana therapy affects the body & mind and brings balance between the physical & psychic wellbeing. Rasayana is very useful to increase the immunity of the person to keep him away from disease. Rasayana herbs have antioxidant properties which prevent the damage caused by free radicals.

Ayurveda has given much priority to live a healthy and joyful long life. Many people are prone to disease due to breaking their dietary habit, change in climate, on the other hand, some people remain healthy inspite of breaking dietary rules or change in climate and do not get affected by any disease. Many microorganisms enter the human body through air and water, but fail to create disease due to immune response present in the living

body. Concept of Vyadhikshamatva described in the classical texts of Ayurveda is similar to immunity. The concepts of immunity and immunomodulation are extensively explored and used in Ayurveda, particularly in Rasayanatantra. Rasayana is believed to promote the process of Dhatuposhana and enrich Ojas leading to Vyadhikshamatva. The concept of Rasayana therapy is not a single drug treatment but it is a comprehensive and specialized regimen capable of producing healthful longevity and improved mental faculties. Several medicinal plants have been described as Rasayanas in Ayurveda.

Guduchi is one of the most highly valued and common herbs known to possess a number of wonderful therapeutic values through its use. It is considered one of the best Rasayanas and is unusual in its potent versatility. In recent years, significant progress has been attained regarding its biological activity and medicinal applications. Guduchi is known to be a rich source of trace elements (Zinc and Copper) which act as antioxidants and protects cells from the damaging effects of oxygen radicals generated during immune activation. Studies have shown its importance in improving

cognitive function because of its ability to cross the blood brain barrier. Its use in reducing the side effects of chemotherapy is a wonder.

INFECTIOUS DISEASES

Infectious diseases are caused by pathogenic microorganisms, such as bacteria, viruses, parasites or fungi; the diseases can be spread, directly or indirectly, from one person to another'. Some infectious diseases can be passed from person to person. Some are transmitted by bites from insects or animals. And others are acquired by ingesting contaminated food or water or being exposed to organisms in the environment. These infectious diseases occur due to lack of immunity of the body. Infectious diseases can range from a simple Common cold to diseases like Cholera, TB, Typhoid etc. The general symptoms of infectious diseases include fever, fatigue, cough, muscle aches etc. We are surrounded by hundreds of micro organisms, inside and outside our body. Most of them are harmless, and some are even helpful. But, under certain conditions, pathological micro organisms can cause diseases.

There is a general chain of events that applies to infections. The chain of events involves several steps which include the infectious agent, reservoir, entering a susceptible host, exit and transmission to new hosts. Each of the links must be present in a chronological order for an infection to develop. Change in the dietary pattern, change of climate etc. makes a person prone for infectious diseases. The infectious agent can contact or enter host cells and directly cause cell death. They can release endotoxins or exotoxins that kill cells at a distance. They also release enzymes that degrade tissue components or damage blood vessels causing ischemic injury. They can induce host cell responses that may cause additional tissue damage, usually by immune mediated mechanisms.

ETIOPATHOGENESIS OF INFECTIOUS DISEASES IN AYURVEDIC VIEW

The living beings, not having vitiated humors in the body, do not get Jwara (disease) created in their body. This implies that, those having vitiated humors in body will get a disease (Jwara Chikitsa). This sentence may seem simple, but Acharya Chakrapani has a commentary on this line that, the term 'Samupasevate' used instead of 'created', which implies that, the micro organism enters in body, and creates the disease. This ultimately implies that, only those who are having vitiated Doshas in body will get infected by micro organisms; or those who are not having vitiated Doshas in body, will not get infected by micro organisms. Ayurveda tells that, even after the entry of micro organisms in human body, disease is not created in the body, until and unless there is vitiation of the humors. There may be some mild signs, but the pathogenesis will not go further to form a disease. So, vitiated Doshas is the root cause of all the Infectious diseases (Jwara Chikitsa).

RASAYANA

Rasayana is one of the eight clinical specialties of classical Ayurveda which creates a foundation of wellness and stability in the physiology of human body. Rasayana means the way for attaining excellence in all body tissues through some special measures and medicines. Rasayana acts at the level of Rasa, Agni and the Srotas, thus enabling the organism to procure the best qualities of different Dhatus. Rasayana plays 2 roles in the control of infectious diseases

- As a prophylactic medication in diseased people.
- Prevention of diseases in healthy individuals.

DEFINITION OF RASAYANA

Rasayana is defined as the way of achieving brilliant Rasadi seven Dhatus. Ahara, Vihara & Aushadhi Dravyas which promotes Rasadi seven Dhatus (Shailesh & Vinayak, 2018).

CLASSIFICATION OF RASAYANA

Rasayana is classified into two types based on needs:

1. **Kamya Rasayana**- which promotes natural health. It increases the energy level, immunity & general health.
 - Pranakamya, Medhakamya and Srikamya are examples of Kamya Rasayana, which are promoters of vitality and longevity, intelligence and complexion.
2. **Naimittika Rasayana**- which helps to fight against a specific disease.

On the basis of place of therapy, Rasayana is again divided into two types:

- Kutipravesika Rasayana
- Vatatipik Rasayana.

MECHANISM OF ACTION OF RASAYANA

Rasayana promotes nutrition through enhancement of the nutritional quality of Rasa, means nutritional enhancement (quality of Rasa Dhatu) by subsequent nourishment of succeeding Dhatus, also improving Agni (Dhatwagni means on enzyme level) promoting improve metabolism & increasing microcirculation through channels (Srotas) in the body. Various researches suggest that the Rasayana drugs are strong rejuvenators, provide additional nutritional supplements & possess high antioxidant activity. They also show antagonistic actions on the oxidative stressors, which used mainly in ageing and other chronic disorders (Chulet & Pradhan, 2009). The Ojas plays a significant role in maintaining good health & vitality. It is the ultimate product of digestion & nutrition of all seven Dhatus (tissues), as well as it is prime energy reserve of the entire body. Ojas shows the overall condition or state of the body as a whole. Immunity, longevity, strength and resistance depend on the quality & quantity of Ojas. Diseases & loss of immunity arises from depletion Ojas. All rejuvenation therapy is targeted at improving the Ojas of the body (Joshi & Bedekar, 2017). Rasayana not only rejuvenates the

body & mind, but it also prevents the diseases. There are various drugs explained which are having qualities of maintaining health, preventing diseases & increasing the life span of individuals. They all are group as Rasayana. Rasayana drugs affecting ojas, improving immunity & resistance to the diseases. In Ayurveda, Ojas has been explained as an essence of all Dhatus & considered to be an excellent body element. Therefore, the excellence of body & mind depends upon the quality of Ojas. Therefore, resistance to the disease of the body depends on the quality & quantity of Ojas (Bargale, Shashirekha, & Baragi, 2014).

GUDUCHI

Herbal products are gaining popularity in the Indian market due to side effects of synthetic products. In Ayurvedic medicine Guduchi is considered to be one of the three Amrit plants. Amrit means nectar of gods; such are the qualities of this climber plant that in Sanskrit it is named as "Amritavalli". Botanical name of Guduchi is *Tinospora cordifolia*. Guduchi is a well-documented in Ayurveda literature. It is used in multiple drug formulations. Ayurvedic practice without this herb may not be possible. It is useful in the promotion and restoration of health and in the treatment and curing of many diseases and known as Panacea (remedy) for all the diseases and disorders. Scientific studies also evaluate and confirm the insight beneficial properties of this medicinal herb like cardio protective, hepatoprotective, antiinflammatory, analgesic effect, confirms the Ayurvedic views of Guduchi as Rasayana and immunity booster. Guduchi is one such plant which is the most highly revered herb in Ayurveda medicine. The name Guduchi comes from Sanskrit word that means "imperishable".

PROPERTIES OF GUDUCHI

It is a well - known medicinal plant in Indian Ayurveda Pharmacy. During last two decades the drug has been subjected extensive phytochemical, pharmacological and clinical investigations. Guduchi is used as an important ingredient in Ayurvedic medicine for the treatment of fever, liver and spleen disorder, bleeding disease, burning sensation of heat, aphrodisiac treatment and oligospermia. Its roots, stems, leaves have all been used medicinally for thousands of years in Ayurveda tradition. Ayurvedic literature quotes Guduchi as constituents of several compound preparations, used in fever, urinary diseases, dyspepsia, and general debility. In Ayurveda, Guduchi is known as Medhya Rasayana which means learning and memory enhancer because in children it has improved their IQ level, its root can be used for its anti-stress activity, dried stem of Guduchi has significant anti-inflammatory effect, it has revealed the hepato protective action in goats. This herb is a well-established preventive agent against H1N1 flu and it is reported to possess anti HIV property. It is an excellent drug which is a good remedy for various diseases of humans and animals yet the safety and the potential indications in human beings and animals have to be established using

modern techniques. Guduchi is the best remedy for children suffering from upper respiratory tract infection. Guduchi is used in Panchakarma other procedures and it can be used for both external and internal therapeutic purposes under various formulations. This herb is mentioned as Tridosha Shamaka and a Rasayana plant and also known as adaptogen because it builds energy and general vitality and increases the resistance of the body to physical, chemical and biological stress.

ACTION OF GUDUCHI IN INFECTIOUS DISEASES

The infectious agent releases Ama (endotoxins) which degrades tissue components (due to Agnimandya) and result in Vyadhi (disease). Guduchi acts in infectious diseases through its Amapachana, Agnideepana, Jwaraghna and Balya properties. Guduchi helps in increasing the killing ability of macrophages. Swarasa promotes platelets cell formation. Satva of Guduchi along with white inner bark of Neem, Daruharidra protect from infectious diseases. Pills are prepared from the paste of stem of the Guduchi and the roots of Bhatkatiaya (*Solanum surattense*) in fever. Decoction of stem, Juice or decoction of leaves and the warm juice of root of the plant are administered orally in different types of fevers. Decoction of stem with cold and hot water (about 3-4 g) in morning in an empty stomach, as a tonic.

CONCLUSIONS

Rasayana (rejuvenation therapy), one of the most essential branches of Ayurveda, Rasayana drug act essentially on nutrition dynamics and rejuvenate the body and psyche. Rasayana does nourishment of all Dhatus (tissues & cells), thus improving resistance against the infectious disease by strengthening immunity. Rasayana, through its effect, causes effective elimination of Malas (waste products) from the body thus causes the balance between the metabolism & excretion. It prevents muscles & tissue damage, thus delays the ageing process. The Rasayana effect of Guduchi can be made use of in treatment as well as prevention of infectious diseases. Rasayana activate those pathways that neutralize the stimuli and inhibition of pathways that cause the disease without altering other basic parameters of body function. This leads us to describe the idea of Rasayanas as a "universal vaccine" for any disease.

REFERENCES

1. Shankar AH, Prasad AS. Zinc and immune function: the biological basis of altered resistance to infection. *Amer J Clin Nutr*, 1998 Aug; 68(2 Suppl): 447.
2. Available from <http://www.chopra.com/guduchi> dated 25.01.2016
3. Infectious diseases. Available from http://www.who.int/topics/infectious_diseases/en/ dated 20.01.2016
4. Sharma P. V. Charaka Samhita Part 2, Chikitsasthana, Varanasi: Chaukambha Orientalia; 2011. P.4. Sloka no:1/8

5. Joshi Y G. *Kayachikitsa*. 4th ed. Pune: Pune Sahitya Vitaran, 2001; 35- 60.
6. Dr. Gyanendra Pandey. *Dravyaguna Vijnana Part 1*, 2nd Edition-, Krishnadas Academy, 2002; 698-700.
7. Nagaprashanthi C, Khan RP, Chand GK, Aleemuddin MA, Begum RG (2012) In vitro antimicrobial activity of *Tinospora cordifolia* and its phytochemical screening. *Int J Pharmtech Res.*, 4: 1004-1008.
8. Sinha K, Mishra NP, Singh J, Khanuja SPS (2004) *Tinospora cordifolia* (Guduchi) a reservoir plant for therapeutic applications: A review. *Indian J Traditional Knowledge*, 3: 257-270.
9. Krishna K, Jigar B, Jagruti P (2008) Guduchi (*Tinospora cordifolia*): Biological and Medicinal properties, a review. *The Internet J Alternative Medicine*, 6: 1-8.
10. Upadhyay AK, Kumar K, Kumar A, Mishra HS (2010) *Tinospora cordifolia* (Willd) Hook.f. Thoms (Guduchi)-validation of the Ayurvedic pharmacology through experimental and clinical studies. *Int J Ayurveda Res.*, 1: 112-121.
11. Sharma R, Amin H, Galib R, Prajapati PK (2014) Therapeutic vistas of guduchi (*Tinospora cordifolia*): A medico- historical memoir. *J Res Educ*, 1-16.
12. Sankhala LN, Tripathi SM, Bhavsar SK, Thakar AM (2012) Evaluation of effect of *Tinospora cordifolia* extract on humoral and cell mediated immunity in Acepate intoxicated mice. *Veterinary practitioner*, 13: 168-170.
13. Salve BA, Tripathi RK, Petare AU, Raut AKA, Rege NN (2015) Effect of *tinospora cordifolia* on physical and cardiovascular performance induced by physical stress in healthy human volunteers. *AYU*, 36: 265-270.
14. Acharya Priyavrat Sharma & Dr. Guruprasad Sharma. *Kaiyyadeva Nighantu Varanasi: Chaukambha Orientalia*, 1979; 5.
15. Dr. Amritpal Singh. *Dhanwantari Nighantu (Sanskrit text with English translation)*, Varanasi: Chaukambha Publishers; 1st edition, 2008; 24.
16. Avnish K. Upadhyay, Kaushal Kumar, Arvind Kumar, and Hari S. Mishra. *Tinospora cordifolia* (Willd.) Hook. f. and Thoms. (Guduchi) – validation of the Ayurvedic pharmacology through experimental and clinical studies. *International Journal of Ayurveda Research*, 2010 Apr1-Jun; 1(2): 112–121.
17. Acharya Vagbhata. *Ashtanga Hridaya, Sutrasthana with Sarvangasundari & Ayurveda Rasayana Vyakhyana* edited by Pt. Hari Sadasiva Sastri Paradakkara Bhisagacharya, Chaukambha Surbharati Prakashan, Varanasi, 2010; 135.
18. Acharya Vagbhata, *Ashtanga Hridaya, Uttaraasthana with Sarvangasundari & Ayurveda Rasayana Vyakhyana* edited by Pt. Hari Sadasiva Sastri Paradakkara Bhisagacharya, Chaukambha Surbharati Prakashan, Varanasi, 2010; 925-926.
19. Acharya Vagbhata, *Ashtanga Hridaya, Chikitsasthana with Sarvangasundari & Ayurveda Rasayana Vyakhyana* edited by Pt. Hari Sadasiva Sastri Paradakkara Bhisagacharya, Chaukambha Surbharati Prakashan, Varanasi, 2010; 594.
20. Singh RK. *Tinospora cordifolia* as an adjuvant drug in the treatment of hyper-reactive malarious splenomegalycase reports. *J Vector Borne Dis.*, 2005; 42(1): 36-38.