

ROLE OF RASAYANA AS IMMUNOMODULATOR IN DISEASES

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ABSTRACT

Ayurveda is the life science and an ancient system of Medicine. The main Purpose of it is to maintain the health of healthy individuals and cure the disease of diseased one. To fulfill both these purpose Bhesaja is mainly divided in two types. To maintain the health of healthy person Swasthasyorjaskara Bhesaja is given which includes Rasayana and Vajikara a Cikitsa and to cure the disease of sick person Artasya Roganuta Bhashaja is given which include the other diseases and its treatment. A disease produced due to specific infectious agent or its toxic products, capable of being directly or indirectly spread from man to man, animal to animal or environment to man or animals. Ayurveda has described a large number of Rasayana, which can provide protection against toxic substances and diseases. They promote physical health, improve the status of the Dhatu (tissues), confer immunity and rejuvenate the system. Concept of Naimittika Rasayana is a unique concept in Ayurveda, proved for its beneficial role in the patients suffering from communicable diseases in promoting vitality, and ability to withstand the devastating effects of these diseases. This concept brings a new dimension into the health-care, and promotes an integrated approach between different modalities in the field of public health.

The paper will discuss about the approach in the management of communicable disease through rasayana therapy with appropriate examples.

Keywords: Rasayana, Immunomodulator, Communicable diseases

INTRODUCTION

Rasayana Tantra is one which deals with delaying of ageing process, increasing of intellect and strength, prolongation of life and curing of disorders.^[1] Dalhan says that *vayasthapan* means prolonging the life upto hundred years. "*Rasayana*" means the way of obtaining good quality of Rasa. The word *rasa* represents the seven *dhatu*s because they all are nourished by *rasa* yield of *aa-hararasa* (digestive product of food).^[2] The quality of the *rasa* in the body directly governs the state of health of an individual. So the meaning of obtaining optimum standard

of *Rasa* is to be *Rasayana*. *Rasayana* is the method of treatment by which the excellent form of *rasa* is maintained in the body. The purpose of *Rasayana* is to obtain strength, immunity, ojus, vitality, will power and determination and it also strengthen the senses. One of the results of *Rasayana* is *oja*, which is the factor responsible for *Vyadhikshamtav*, (Immunity). So that people will not be suffered from any communicable diseases.

Classification of *Rasayana*

Based on the aim

(1) *Naimittika rasayana*: Used for a particular cause, which cause a disease. eg. *Pippli* (piper longum) *rasayana* for *Rajyakshma*, *Mandookparni* (Centela asiatica) *rasayana* for *medha*, *Triphala rasayana* for *chakshu*.

(2) *Ajasrika rasayana*- It is used to maintain good health and improve the quality of life through a healthy life style, diet, or exercise in daily routine. Eg. Milk, Ghee, Honey, adopting the principles of *Aachar rasayan*.

(3) *Kamya rasayana*- It is used to fulfil a desire or to serve a special purpose. It is of four types:

- *Prana kamya*- achieves or maintains the best quality of *prana* in the body.
- *Medha kamya*- enhances the memory and intellect.
- *Ayush kamya*- increase longevity.
- *Chakshu kamya*- maintain healthy eyes

Based on mode of action

(1) *Samsodhan* – ‘*Dosasya samsodhanadi samsodhanam*’

(2) *Samsamana* – ‘*Samasamanam nagabaladi prayogadikam*’

samsodhana and *samsamana* both are curative in nature *samsodhana* type of *Rasayan* expels the aggravated *dosas* whereas *samsamana* type pacifies the accumulated ones.^{[3]27/1-2}

Susruta has classified into four types

- *Sarvo paghata Samniya*
- *Medhayuskamiya*
- *Svabhavavyadhi Pratisedhaniya*
- *Nivrta Sanapiya*

In this, *sarvopghata samaniya* deals with counteract the diseases process. *medhayuskamiya* is one of by which an individual can increase his intellect and prolong his life. *svabhavavyadhi pratisedhaniya* is one which delays the onset of *svabhavika vyadhis* like *kshut*, *pipasa*, *jara*, *mrtyu*, etc. and *nivrta santapiya Rasayana* rebuilds the physical

and mental faculties following their disturbance due to diseases process.

Based on method of administration^[4]

(1) *Kutipravesika* – It is indoor administration. In which the person lives in a specially prepared cottage for a long period, where provided various *Rasayana* preparations. This therapy cannot be followed in routine life due to strict rules. *dronipravesika* is similar to *kutipravesika* with slight modification wherein the individual is made to stay in a *Droni* (made out of Palasa) for six months consuming the juices of special herbs having *rasayana* qualities.

(2) *Vatatapika*- It is better for people who engaged in their busy life schedule. *Rasayan* is administered with patient exposed to *Vata* and *Atapa*. e.g. *Brahma rasayana* , *Shilajitu rasayana*, *Amalaki rasayana*. *Haritaki rasayana*, *Pippali rasayana*, *Lohadi rasayana*. A total of 63 combinations of various rejuvenation formulae are described in *charak samhita*.

One more *Rasayana* variety has been mentioned in *Charak samhita*.^[5] i.e. *Acara Rasayana*, which is a non-pharmacological form and in this *Sadvrta* and *Swasthavrta* followed strictly and gets the beneficial effects. It is a just like a code of good conduct and habit^[6].

Communicable diseases – A diseases due to specific infectious agent or its toxic products, capable of being directly or indirectly spread from man to man, animal to man, environment to man.^[7] eg. AIDS, PTB etc.

Materials and methods:-

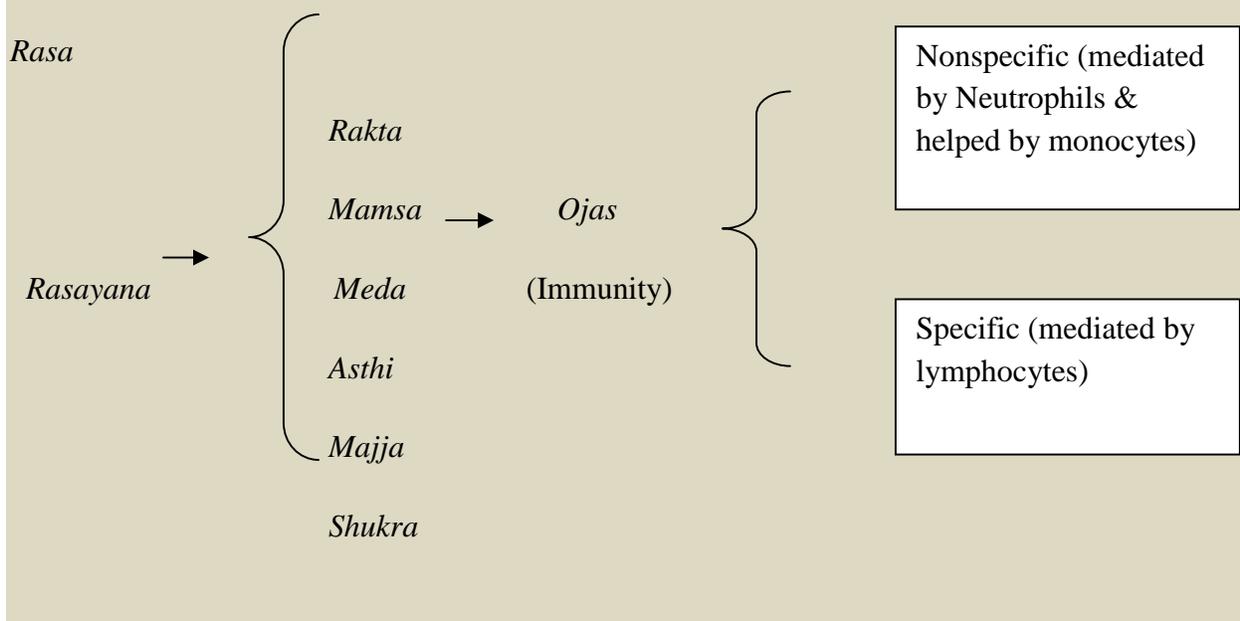
The related references have been collected from different *Ayurvedic* texts and its available commentaries, related websites. The collected references have been critically observed, compiled and discussed thoroughly.

DISCUSSION

Rasayana – Vyadhikshamatva (Immunity): *Rasayan* therapy works as immunomodulator for prevention of various communicable diseases. *Rasayana* is a specialized treatment infusing the fundamental aspect of the organs i.e. *dhatu*s, *agni* and *srotamsi*, leading to overall improvement in the organism, which affords prevention of ageing, re-

sistance against diseases, bodily strength and improvement in mental faculties. *Ayurveda* conceives an unique concept of *Ojas*, which is the essence of all *dhatu*s and responsible for vital strength of the body and resistance against the diseases i.e. immunity, Says surrurate: *Tatrasadinaamshukrantaanaam dhatunaam yat param tejas tat khalu Ojas, tadeva balamiti uchyate swa shastra sid-dhantaat.*^[8]

S.No.1:- Hypothesis depicting relation of *Rasayana* and *Ojas*^[9]



vyadhi- kshamtava (natural resistance) is not of the same order constitution i.e.it varies with individuals.It also depends upon nutritional, environmental and individual factors –both physical and mental. The *vyadhikshamtav* or *Bala* is stated to be of three types.

1. *Sahaja Bala*- It is genetic and inborn resistance to diseases, which exists since birth.
2. *Kalaj bala* - This type of immunity is said to be influenced by seasonal traits and the age of the person.
3. *Yuktikrit bala*-this type of *sarir bala* refers to modulation of body's resistance against diseases by resort to appropriate *ojo*

vardhak diet, physical exercise, restorative and *Rasayana* therapies in keeping with seasonal needs.^[10]

Pharmacodynamics of *Rasayana*^[11]

Rasayana drugs have varied pharmacodynamic properties. Probably there is no much relation with their properties of *Ras*, *Guna*, *Veerya*, *Vipaka*.

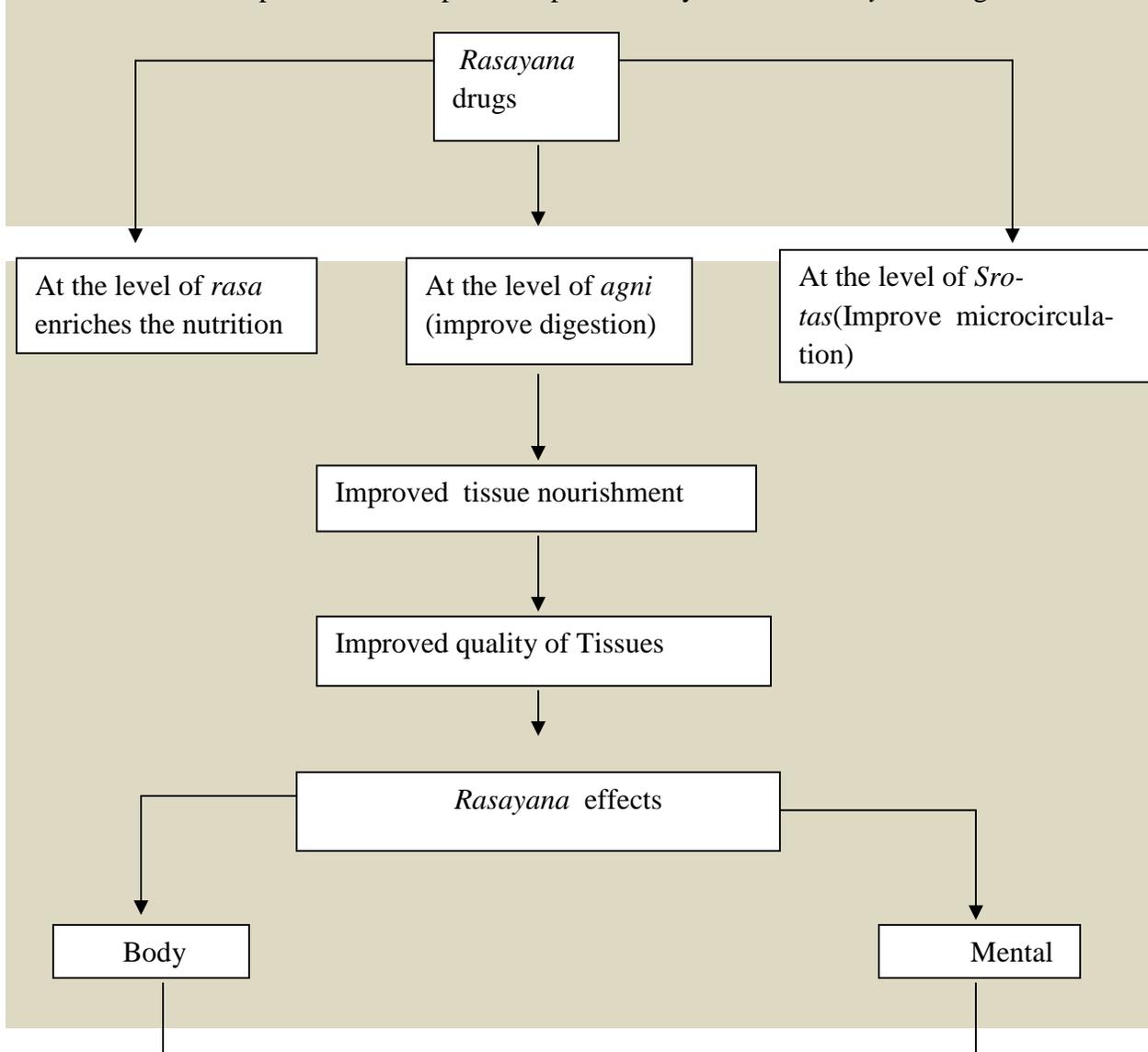
1. *Rasayana* may act at the level of *Rasa*- By improving the nutritional status of *rasa* and in turn by improving tissue nourishment. Probably *Rasayana* drugs having *madhura*, *guru*, *snigdha*, and *sheeta guna* may act at this level by promoting the nutritional value of *poshaka rasa*, which in turn

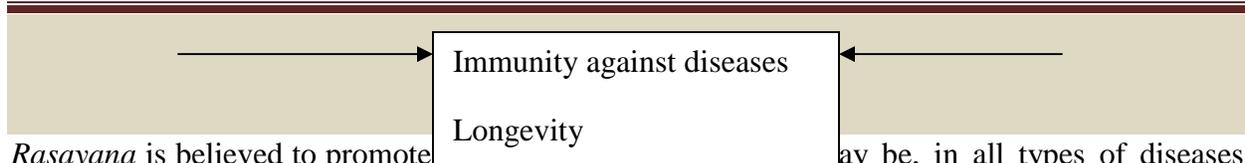
helps in obtaining the best qualities of *dhatu*s. e.g. *Shatavari*, *milk*, *ghrita*, *amalki*, *yastimadhu*.

2. *Rasayana* may act at the level of *Agni* – The *Rasayana* drugs possessing the *Ushna*, *laghu*, *ruksha*, *guna* and *katu*, *tikta*, *kashaya rasa* may be acting at the level of *agni* (digestion and metabolism) by improving the digestive capacity and by vitalizing the metabolic activities (improving *jatharagni* and *dhatwagnis*) of the body. e.g. *Pippli* (*Piper longum*), *haritaki* (*Terminelia chebula*), *chitraka* (*Plumbago zeylanica*).

3. *Rasayana* may act at the level of *Srotas* – Similarly the drugs with *katu*, *tikta*, *kashaya rasa* *ushna* *veerya*, *katu* *vipaka*, *vishada*, *ruksha* and *laghu* *gunas* may produce the classical *Rasayana* effect at the level of *srotos* by improving *sukshma samvahn* and the quality of *deepan* and *pachan*. These drugs cause *srotoshodhan* (cleansing of channels) and thus allow efficient blood circulation and improve tissue nourishment and there by maintains its structural integrity and functional capacity. e.g. *Guggulu* (*Commiphera mukul*), *rasona* (*Allium sativum*), *bhallatak* (*Semicarpus anacardium*).

S.No.-2 Schematic representation of probable pharmacodynamics of *rasayana* drugs





Rasayana is believed to promote of *dhatuposhana* and enrich *ojas* leading to *vyadhikshamatva*. The defence mechanism present in the body allows us to survive in the potentially hostile world of infectious agents. This constitutional order is immune system. Any change in this order can lead to diseases.

After the discovery of antibiotics it was thought that the man has occupied infectious diseases. But their limitation surfaced. At that time it was relieved that rather than having war these diseases, preventive defence mechanism is better. Treating diseases with synthetic immunomodulator still looks like distant dreams. The concept of strengthening of inherent defence mechanism in our body exists in *rasayana* therapy.

Communicable diseases are caused due to the *agantuka karanas* and coming under the *adhibhautika* and *adhidavika*, which is an *aupasargika*, *roga*. *Sushruta* has clearly mentioned regarding *aupasargika roga*.^[12] Hence communicable diseases is *aup-sargika* in origin, implying boots or living creatures or viruses etc are the causative agents and the diseases can be transmitted from one person to another.

Diseases are of two types' viz. *niza* and *agantuka*. In *niza vyadhis* the *doshas* are vitiated first and they are responsible for formation of the disease by causing derangements in *dushyas*, *srotas* and *agni*. Therefore the clinical manifestation also depends on these factors like *dosha*, *dushyas*, *srotas* and *agni*. In case of *agantuja vyadhis* the *doshas* get involved later in the diseases process and the clinical manifestations accordingly will be produced at the large stage. Whatever the

may be, in all types of diseases, *doshas* get involved following the involvement of *dushyas*, *srotas* and *agni*.^[13]

In different *Samhita granthas* description about living organism like *Krimis* are also mentioned. It is mentioned that different like *Kushta*, *Shosha*, *Netrabhishyanda* etc. are produced by the *Krimis*, which are *Aup-sargika* (communicable) in nature and can be transmitted from one person to another.^[14] Even though the ancient *Acharyas* were well known about various pathogenic organisms, they have not given much important to them during treatment. The *Beejas* (living pathogens) are omnipresent and their entry to the body cannot be checked. The environmental conditions in our body are of greater importance. Because, if the environmental condition in our body is suitable for the pathogenic organism, they can grow inside and produce diseases, otherwise not. The internal environment of our body is controlled by the *Doshas*. Whenever the *Doshas* will be in normal conditions, they maintain the body properly by keeping the *Dushyas*, *Srotas* as well as *Agni* in normal position. But when the aggravation of *Doshas* occurs they lead to the derangement of the *Dushyas*, *Srotas*, and *Agni* there by causing the diseases. *Acharya Charak* also has mentioned that-

Nidana dosha dooshya visheshebhya vikaravighata bhavaabhava prativisheshah bhavanti^[15]

The *vikara vighata bhava* (factors responsible to oppose the manifestation of diseases) and *vikara vighata abhava* (the absence of *vikara vighata bhava*) are depending on three factors like *Nidana*, *Doshas* and

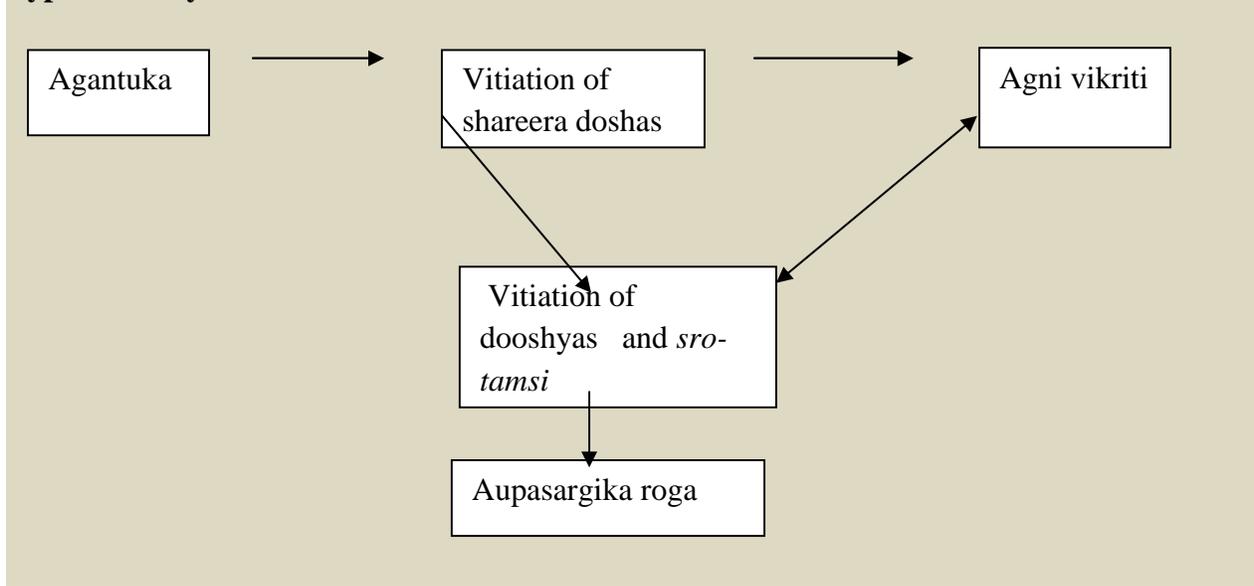
Dushyas. Among these three factors *Doshas* is important because it controls the internal environment of the body. As it is said-

Teshaam sarveshaameva vata pitta shleshmaanah pradushta dooshaitaro bhavanti dosha svabhavaat iti.^[16]

Derangement of internal environment of the body occurs, when *doshas* get aggravated by taking the suitable *Nidanas* (*Ahita ahara viharas*). If the internal environment of the body is maintained properly, it will not be suitable for growing up the *Beeja* (patho-

gens) to produce the diseases. This depends on the *vikara vighata bhava* otherwise known as *Vyadhikshamatva* of the body. *Vyadhikshamatva* is interpreted as *vyadhibala virodhitva* (antagonistic to strength and virulence of diseases) and *vyadhi utpadaprativandhakatva* (the capacity to inhibit or neutralise or resist or overcome diseases causing agents).^[17] This *vyadhikshamatva* depends on the presence of *bala* or *Oja* in the body. *Oja* is the *sara* or essence of *Dhatus*.

S.No.-3 Etiopathogenesis (*samprapti*) of communicable diseases (*Aupsargika*) can be made hypothetically as



It has been previously stated that *Rasayana* are worked at various levels including *Dhatu*, *Agni* and *Srotas*. Consequently, *Vyadhikshamatav* of the body is being improved and thus internal environment is also improved and maintained. This condition is totally unfavourable to growth and cultivation of microbes, results in healthy people and healthy society.

CONCLUSION

The paper can be concluded as:

1. *Ayurveda* is aimed for the maintenance of *Dhatusamyaa* and it is basically achieved by preservation of health.
2. Concept of *Rasayana*

a is designed for both conditions i.e. health as well as diseased. 3. *Rasayana* works at various levels in the body and overall result is an absolute state of *Vyadhikshamatava*. 4. Here more emphasis is given on the improvement of internal environment rather the cure and destruction of disease agent; and *rasayana* is capable to fulfill this aim. 5. Results of various studies on *Rasayana* show that it works as an immunomodulator in both the conditions i.e. health and diseased.

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