

**REVIEW OF CONCEPT OF RASAYANA (REJUVENATION) AND ITS APPLICATION
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ABSTRACT

Long and healthy life is cherished by man since antiquity. Ayurveda is the science of life through which a prolonged, happy and healthy life can be attained. Rasayana is definitely the only mean to accomplish it. Rasayana is explained in all classical treatises in great details. It is a distinct branch in Ashtanga Ayurveda and indicates its importance in treatment. All classical treatises have explained Rasayanas in great details. Creators of Bruhatrayi and Laghutrayi have dedicated separate chapters for explaining Rasayanas. Different definitions and Niruktis help in clarifying basics of Rasayana. Commentators such as Acharya Chakrapanidatta, Gangadhara, Yogindranath Sen, Dalhana, Arundatta, have also put forward different aspects of Rasayana and have brought forward different facets. The purpose of Ayurveda is maintenance of Swasthya (health) and treatment of the Aatura (diseased person). Practical application of Rasayana at both the levels help in serving the purpose. Classification of Rasayana in different ways help in understanding its use in different indications. As age progresses we suffer from some loss from time to time. Replenishment of these losses needs use of different rejuvenating agents at different age groups. Use of Rasayana also means escalation of Satva Guna of mind and that can only be achieved by simultaneous use of Achara Rasayana. With advancement in modern sciences, the age old concept is also studied using newer techniques and parameters and is proven to be effective rejuvenator and has added a lot of information. Hence, use of Rasayana is for all. It is equally important in treatment of diseases as well as in maintaining health. Use of different medicines as per disease is useful in correcting Dhatu Vaishmya and attaining Dhatu Samya. In view of this plethora of information it can be correct to state that Rasayana is a boon given to the world by Ayurveda.

KEYWORDS: Rasayana, Rejuvenation, Immunity, Ayurveda.**BACKGROUND**

The description of Rasayana comes in details in all the Ayurvedic texts. This branch of Ayurveda appears to have practiced in ancient lines as an important specialty aiming at rejuvenation and geriatric care. In fact, Rasayana is one of the eight branches of Ayurveda.^[1] Rasayana Chikitsa has importance from both the preventive and curative aspect of the disease. So much importance is given to this particular branch that the chapters of Rasayana find foremost place in the Charaka samhita Chikitsa sthana.^[2] Whereas Charaka Samhita describes Rasayana in the first padas of Chikitsa Sthana in Sushruta Samhita it is pushed back to chapters 27-30 of Chikitsa sthana.^[3] In Astang Hridaya Rasayana does not find a special place in Chikitsa sthana and is described only briefly that in the 39th chapter of Uttar Tantra.^[4] This reflects on the declining importance of Rasayana therapy in the Samhita period itself.

In Sushruta Samhita, which is otherwise considered more precise and practical has given a competitively moderate

description of the Rasayana in four chapters out of which two chapters deal with Divya Rasayana i.e. the divine drugs, which are practically not available today.^[5]

Acharaya Vaghabhatta in Astang Hridaya has omitted the description of Divine Rasayanas and has incorporated several number drugs for medicinal use such as Rasona and Palandu.^[4]

The golden period of Rasayan tantra of Charaka and Sushruta era gradually faced a decline with the passage of time as the occurrence of ailments took strength. Particularly the indoor Rasayanas lost their popularity so much so that gradually Rasayana lost its place as independent specialty and came to be regarded as part of Chikitsa especially Kayachikitsa.

A long and healthy life has been cherished by Man since antiquity. Ayurveda is the science of life through which a prolonged happy and healthy life can be attained. This ancient holistic science has a dwell motto

of maintaining the health of a healthy person and to alleviate disorders of diseased.^[4] Ayurveda still remains a vital health care system even in today's urbanized advanced world, shows its vitality and inherent strength. Even in the primeval classical period Ayurveda was already a well developed science of medicine and was practiced in the form of Astang Ayurveda i.e. Medicine with eight specialties viz, Kayachikitsa, Shalakyas, Shalya, Visha, Bhoot, Kaumar, Rasayan and Vajikaran Tantras.^[6] The two fold aim of ayurveda can be very well furnished through the special branch Rasayan. We all want to look forever young and increase our life-span by staying healthy. Rasayanas or vitalizers, as they are called, do exactly the same. They replenish the vital fluids of our body, thus keeping us away from diseases.

Rasayana appears to have been practiced as an important specialty aiming at rejuvenation, geriatric care, mental competence, increased immunity, etc to possess a long and healthy life. Thus it was the key for maintaining positive health and longevity. Rasayana deal with preservation and promotion of health and vigor and thereby is more for promotional health i.e. even the normal individuals can make use of this branch to increase body strength, health, and body resistance to protect them from any ailment. The remaining branches deal with curing the sick people.

In context of various health problems, due to stress, degenerative changes, ageing, leading to impairment of immune system it becomes the need of time to study the ancient concept of Rasayana to ameliorate the immune system.

Charak starts Chikitsa Sthana with Rasayan and Vajikaran giving still more priority to Rasayan⁷. The reason to which given by Chakrapani is that, as they are Mahaphaldayi and among them Rasayana is the one which endows strength and immunity resulting in 100/1000 years of long and disease free life.^[8]

Rasayana therapy plays important role in Prevention of premature wears and tears of body tissues and promotion of total health content of an individual. Thus Rasayana Chikitsa has got importance from both the preventive and curative aspect of the disease.^[9]

In this chapter Charak has described therapeutics of two types: Swasthasya Urjaskar and Artasya Rognut.^[9]

1. Swasthasya Urjaskar

It means to promote and maintain the health of healthy person. The word 'Urja' means best (Prashasta), Bala (strength), Energy and life (Pranan). Swasthasya Urjaskar includes Rasayan and Vajikaran therapies. A review of Chakrapani commentary on this issue reveals that the former promotive therapy is meant to deal with Swabhavik Rogas i.e. natural disorders such as hunger, thirst, ageing, early death, sleep, etc. in a healthy person.^[9] While the latter takes care of sexual problems

such as diminished libido, sperm anomalies, desires, etc. "As they provide the essential (Prashasta) bodily factors and enriches ones total structure, they are termed as Urjaskara", mentions Chakrapani.^[9] On the same level Gagadhar holds the view that this type of therapy coming under Swasthavritta means the therapeutic which promotes Oja, the vital energy.^[10] Similarly Yogindranath also explains that Urjaskar means that which promotes strength, complexion, etc.^[11]

In short the gist of the discussion is that, though it is said that Rasayana and Vajikarana are employed to infuse strength, power and life as well as to maintain health but both of them are used for the management of various diseased conditions as well. Rasayana is being more useful in such conditions.

2. Artasya Rognut

This cures the ailments. It is meant for alleviation of disorders. The word Arta as per Chakrapani implies painful conditions caused by various disorders like Jwara, Kushtha, etc. and thus Artasya Rognut means the Bhesaj which pacifies those pains.^[9] This variety of therapy possesses Doshprashaman property, says Gangadhar.

It is also said that both these groups can perform both these functions. Chakrapani says that the energy promoting group comprised of Vrishya and Rasayan treatment not only performs aphrodisiac and rejuvenating properties respectively but also acts as disease alleviator. Similarly the other group meant for curing maladies can also act as Rasayan or Vajikar. For example formulations like 'Sarpiguda' mentioned in 'KShata - Ksheen' Chikitsa, 'Yograj' mentioned in 'Panduroga', Agastya Haritaki prescribed for Kasa, etc are also useful as Rasayan or Vrishya whereas various Rasayana drugs are found to be effective in curing many diseases. Chakrapani also reveals the idea of other authors who believe that the Bhesaj which along with providing strength, firmness, longevity etc also takes care of ailments can be termed as Rasayanas. While the drugs which only cures diseases cannot be called as Rasayanas.^[9] There is another view setup by Gangadhar who says that Rasayanas of the promotive therapy plays important role in curing disorders while the Vrishya drugs though also have action on diseases, but do not have important role in alleviating the same. These are the different viewpoints laid on the word 'Dwitiya'.^[9] While Yogindranath also supports Chakrapani's view and tries to lay down his theory saying that the promotive drugs as they bring about the equilibrium of dhatus, they pacify the disorders in doing so, whereas the remedial drugs accomplish the other activity by improving strength, complexion, etc.^[11]

ETYMOLOGY (NIRUKTI)

The word Rasayana (Rasa +Ayana) refers to nutrition and its transportation in the body. Rasa means nutrition and Ayana means microcellular channels and hence

Rasayana essentially means nutrition at microcellular level.

Ayana also may be taken as apayana according to Yogindranath and hence rasayan may be taken as the way or the measure to attain replenished and excellent dhatus. Here the word Rasa stands for all the Dhatus and Ayana (Vardhan) means nutrition or nourishment. Thus it becomes clear that methods which are employed for the nourishment or providing strength to the Dhatus fall into Rasayana.

Rasayanas bring about the normalcy of Rasa Dhatu and thereby maintain other Dhatus in equilibrium for a longer period. Thus in turn prevents ageing and provides longevity which can be understood as Vayasthapan or Jaranashan. Rasayana also enhances individual resistance power against diseases.

DEFINITIONS (VYAKHYAS)

1. Shabdakalpadrum.

The therapy which destroys ageing, senility and disorders by providing Vayastambhakantya guna and is beneficial for eyes, increases body weight and also possesses aphrodisiac property is termed as Rasayana.

2. Shushrutsamhita

Rasayan tantra is the branch which endows Vayasthapan property – age sustainer, imparts longevity, intellect and above that which is also able in curing diseases by enriching immune system. (Rogapaharansamarth). Rasayan serves to make human system invulnerable to disease and decay. It enables to retain manhood or youthful vigor up to a good old age.

As per Dalhan, Vyasthapan can be understood as living up to 100 years while Ayushkar means living more than 100 years. Dalhana also says that some authors are of the opinion that Vayasthapan can be taken as Jarapaharana i.e. maintaining longer youthful life.

On reviewing Charapani's commentary on Vayasthapan it is found that Vayasthapan is age sustaining i.e. which stabilizes the youthful age. In short one which prevents senility.

Dalhana while commenting on Sushruta interprets the term "Rasayana" in two ways;

1. That (food, medicine, or therapy) which nourishes Rasa and other Dhatus and
2. That therapy (medicine) which makes the Bhashaja (drug) dependant Ras (taste), Guna (properties), Veerya (potency), Vipak (taste after digestion), Prabhava (specific property) easily and thoroughly compatible to the body and thereby bestows long life, strength and retards ageing, imparts excellent rasadi dhatus and immunity against diseases.

3. Charak Samhita

Rasayana is that promotive treatment which is meant for attaining premium or quality Rasa, and other dhatus. Thus, it can be considered as an accelerated and appropriated nutrition leading to improved biological competence of the body.

Chakrapani while interpreting on the above verse says that not only the physical but also the mental qualities like memory, etc are to be considered by the word Rasadi. Hence according to him Rasayan is a rejuvenatory therapy for achieving vigor and health accompanied by finest mental competence.

On the definition laid down by Charak, Gangadhar comments that Rasayana is that treatment which produces excellent Dhatus and thereby promotes longevity, memory, etc. An overview of Gangadhar commentary on, "Labhopayo Hi Shastanam Rasadinam Rasayanam", reveals that, the word Shastanam is interpreted as persistent youthfulness and the word Rasadi is taken as those originated from Rasa.

Similarly Yogindranath says that Rasayan is that which produces best Dhatus right from Rasa to Shukra and thereby endows longevity, memory, etc. It may also be defined as the therapy which replenishes the Dhatu.

Similar definition has been laid down by Vagbhatt in Astanga Hridaya and Ashtanga Samgraha.

4. Astanga Hridaya

Rasayana is the mode through which excellent Dhatus starting from Rasa can be attained. Arundatta while commenting on the chronological order of eight specialties of ayurveda says that as Rasayana is capable of treating poisons and their severe ill effects, it is listed after Visha Tantra Ashtanga Hrudaya.

5. Haritsamhita

The therapy which provides firmness/ strength to Sharir (body), Indriya (sensory and motor organs), as well as which cures wrinkling, graying of hair, hair fall as said by previous scholars is termed as Rasayana.

Harit also says that the disorders which are associated with complications can be dealt successfully by rasayanas.

6. Sharangdhara samhita

Rasayan destroys senility and ailments. Eg. Guduchi, Rudanti, Guggul, Haritaki.

7. Bhavaprakash

The medicine which destroys ageing and diseases, sustains age and is body stoutening, beneficial for eyes and also is aphrodisiac is termed as Rasayana.

BENEFITS OF RASAYANAS

Charaksamhita - are as follows.

- Promotes Longevity of life

- Improved mental and intellectual competence.
- Provides immunity against diseases resulting in positive health
- Delays ageing process by preserving Youthfulness
- Improvement in the complexion and luster of the skin (Prabha and Kanti)
- Enrichment in 'Svara' (voice)
- Excellence of body glow
- Optimization of strength of body and indriyas (motor and sense organs)
- person becomes more helpful and generous
- Physical and mental strength improvement
- Command over speech/ infallibility of speech (Vaksiddhi)
- Attaining Humbleness and politeness(Pranati)
- Proper, accurate balanced and premium production of all the Sharir Dhatus (Right from Rasa Dhatu to the Shurka dhatu).

Chakrapani while commenting on Vakasiddhi and Pranati says that Rasayana bestows the advantage of, power of hypnotism and honor in society respectively.

Ashtanga Hridaya

It has also listed the benefits of Rasayana on the same lines of Charak with the only exception being that 'Pranati' advantage is replaced by 'Vrishata' i.e. aphrodisiac property. Yogindra Nath commentary on this verse also goes in hand with the above change done by Vagabhatt.

Sushrutsamhita

- Sustains age and youthfulness.
- Increase in life-span.
- increase intellectual capacity and strength
- Freedom from diseases (i.e. immunity is increased)
- Sarva Upghatshamaniya i.e. Cures all the ailments and problems.
- Acts as rejuvenator and general restorative treatment.

Sharangdhar Samhita

Rasayanas destroys senility and diseases. Acharaya Sharangdhar has beautifully described the progressive aging where it has been described that every individual is at risk of losing one of the following properties at every decade.

Aging is a natural process and the changes that occur due to aging are bound to occur. Life has to end at some point. Rasayanas are very efficient in delaying these impacts so these changes are not too troublesome to the patients. The preventable changes can also be barred with the use of Rasayana. The following table [Table 1] enumerates these changes of every stage of life and the possible Rasayana Dravyas prescribed to prevent those changes or to minimize their effect as per Sharangdhar Samhita.

Table 1: Need and Rasayana Medicine According to Age Groups according to Sharangdhar Samhita.

Decade	Loss of features	Desirable Rasayanas
First (0-10yrs)	Balyavastha (Childhood)	Swarna (Gold)
Second (11-20yrs)	Vruddhi (growth)	Bala (<i>Sida cordifolia</i> Linn)
Third (21-30yrs)	Chavi (luster)	Amalaki (<i>Emblica officinalis</i> Gaertn)
Fourth (31-40yrs)	Medha (intellect)	Shankapuspi (<i>Convolvulus pluricaulis</i> Choisy)
Fifth (41-50yrs)	Twak (Complexion)	Jyotismati (<i>Celastrus paniculatus</i>)
Sixth (51-60yrs)	Drusti (Vision)	Jyotismati (<i>Celastrus paniculatus</i>)
Seventh (61-70yrs)	Shukra(reproductive power)	Ashvagandha (<i>Withania somnifera</i> L)
Eighth (71-80yrs)	Vikram (Courage)	Bala (<i>Sida cordifolia</i> Linn)
Ninth (81-90yrs)	Buddhi (intelligence)	Brahmi (<i>Herpestris moniera</i> HBK)
Tenth (91-100yrs)	Karma Indriya (motor organs)	Bala (<i>Sida cordifolia</i> Linn)
Eleventh (101-110yrs)	Chetas/Manas(mind)	Rasayana may not be effective
Twelfth (111-120yrs)	Jivan (ceasation of life)	Rasayana may not be effective

INDICATIONS

Rejuvenatory therapy is indicated either in young age (Purva vaya i.e. 16 to 30 yrs) or middle age (Madhayam vaya i.e. 30 to 60 years) person, only after proper oleation and purification of the body., Just as dyeing a dirty cloth does not make the color shine bright, rejuvenatory therapy is unsuitable/unbeneficial to him who has not undergone purificatory therapies before Rasayana. (Sh.Chi.27/3-4).

Nutrition is the primary attribute of Rasayana. Longevity and aging issue is one of its secondary attributes. It is advisable to select Rasayana suitable for different age

groups in relevance to the rate of aging as described by Sarnghadhara (1:6:62).

The patient undergoing Rasayana therapy should not only be fit from physical point of view but also, he should be healthy from mind. The person should have Satvik Manas (good psychological characteristics) and should be free from Manasik Doshas namely-Raja and Tama. Purity of the mind should also be assured before giving Rasayana therapy. A particular Rasayana has to be selected for each individual appropriately in consideration of his Vaya, Prakriti, Satmya, state of Agni

and Dhatus, Srotas and environmental factors like Desha, Kala etc.

Though Rasayana has been said to be used in the above-mentioned age groups but it should be clear that Rasayana is a science of Nutrition i.e. Poshana and is applicable to all ages from pediatrics to geriatrics. Though its use may prolong life span and impart longevity, the fundamental underlying theme of Rasayana is nutrition. Nutrition is the primary attribute of Rasayana.

The second most important point regarding the usage of Rasayana is the health status of the individual. Rasayana therapy should not be used when the individual suffers from an acute/active phase of a particular disease. Nor should Rasayana therapy be used in the Amavastha of a disease.

CONTRAINDICATIONS

Acharaya Sushruta has said that Rasayanas are contraindicated to following seven types of people:

- Anatmavan (those who are not self controlled)
- Alasi (Lazy).

- Daridri (financially weak)
- Pramadi (the indigent, unwise Not listening)
- Vyasani (addicted to vices addicts)
- Papakrut (the sinful)
- Bhesajapmani (Those who do not trust on medication)

They do not deserve the therapy due to following seven causes which act as Hindrance to the effects of Rasayanas.

- Ignorance
- Inactivity
- Unsteady mind
- Poverty
- Dependence
- Intemperance and impiety
- Inability to secure the genuine medicines.

Rasayana therapy is not to be used in the Amavastha too. Rasayana therapy used in this condition not only becomes useless but may also cause distressing symptoms as well.

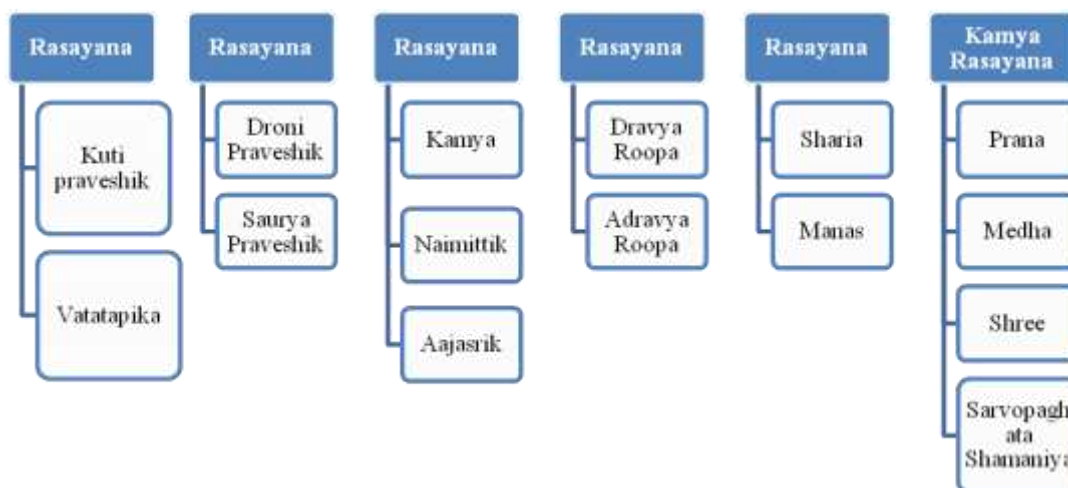


Figure 1: Types of Rasayana.

RASAYANA ACCORDING TO DISEASES (VYADHI)

As rasayana are useful in strengthening body tissues and can replenish body tissues, it plays important role in every disease. It helps in regaining the strength, stamina, vigour that is lost during fighting with the disease. It also plays very important role in avoiding recurrence of disease or its complications. Generally, rasayana medicines are useful along with other active management of disease as well as after active treatment is completed. Hence it is very clear that treatment of a disease can not be considered as complete without using rasayana. So, in view of specific pathology of a disease and its effects on body tissues specific properties of different herbs or medicines are play better role as rejuvenators in different diseases or systems affected.

For example, in diseases of respiratory system use of Pippali (*Piper longum* Linn) is beneficial while for digestive system or excretory system Bilva (*Aegle marmelos* L) is often beneficial. Use of Guduchi (*Tinospora cordifolia* Miers) is widely studied in modern pharmacology and has shown many beneficial and rejuvenating effects on hepatobiliary system. Similarly use of Brahmi (*Herpestris moniera* HBK) in diseases related to nervous system is well studied and documented. Hence according to the properties of different medicines explained in classical ayurvedic treatises and also based on research different medicines which can show rejuvenating effects on different systems can be compiled and used effectively in practice.

RASAYANA IN CURRENT PERIOD

Details of description are available about Rasayana in classical Ayurvedic treatises. In light of newer techniques of researches some of very well-known Rasayana medicines are explored. Ashwagandha is well known medicinal herb used as Rasayana. It has shown to reduce reduced levels of dopamine (DA), 3,4-dihydroxyphenylacetic acid (DOPAC) and homovanillic acid (HVA); antioxidants: glutathione (GSH) and glutathione peroxidase (GPx); and lipid peroxidation marker (TBARS) and GPx and induced thiobarbituric acid reactive substance (TBARS) level, proving its potential drug in treating catecholamines, oxidative damage and physiological abnormalities.^[12] Root extract of Ashwagandha has also shown good effect in relieving pain disability caused in patients of osteoarthritis of knee.^[13] Also, extract of leaves of Amalaki (*Embolia officinalis*) is found to exert rapid protective effects against lipid peroxidation by scavenging of free radicals and reducing the risk of diabetic complications.^[14] Amalaki is told to be the best medicine as Vayasthapana. Triphala another abundantly used medicine for various purposes also possesses Rasayana effects. Triphala was found to alleviate the nephrotoxic effects of bromobenzene by increasing the activities of antioxidant enzymes and reducing the levels of lipid peroxidation and kidney functional markers.^[15] Triphala has also exhibited anti-inflammatory effects in animal model.^[16] Another famous Rasayana medicine Bilva has also shown strong antitumor and antioxidant activities.^[17] Also, Bilva has shown to possess gastro-duodenal protective and anti-ulcerogenic properties through its antioxidant mechanism.^[18] Some of classical Ayurvedic formulations such as Laxmivilas Ras, Agnitundi Vati, Ajmodadi Churna, Tribhuvankirti Rasa and Sitopladi Churna, when tested for their antioxidant effect, they were found to possess efficient scavenger of superoxide radical and all medicines were found to possess scavenging activity and inhibitory concentration 50% (IC₅₀).^[19] Many other formulations are also tested on various parameters and are found to possess antioxidant, immune booster properties.

CONCLUSION

Approach of treatment that is explained by means of Rasayana is novel concept. Hardly any of health sciences is found to have put thrust as huge as Ayurveda has. It gives an insight about what should the treatment aim at – establishment of Dhatu Samya. Hence treatment of any disease would not be complete without using Rasayana. Use of Rasayana, specific to that disease, are mentioned in treatment of each disease, is mentioned in each Adhyaya of Samhitas and is broadly explained in separate Adhyayas dedicated to it. Proper understanding and application of this concept in practice of Ayurveda would only lead to perfect and precise treatment. No doubt, Rasayana is very important view point expressed in classical treatises and is boon to the world.

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