REVIEW ARTICLE

Rasayan – The Ayurvedic Perspective

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ABSTRACT

The Rasayan branch of Ayurveda deals specifically with and Rasayan formulations bestows upon the user, the longevity, with age stabilization, retaining youth for longer with maintaining strength of all organs optimally, enhanced intelligence, aphrodisiac prowess, improved complexion, voice and allied positive health attributes. Presently considerable research is being carried out on various Rasayan Products and the herbs to screen them for various therapeutic benefits. But the research is focusing only one or couple of aspects of Rasayan’s therapeutic benefits. The exhaustive research on all therapeutic benefits of single Rasayan product will be more conclusive validation of claims of classical Ayurvedic texts. This perspective review also details main Rasayan formulations with emphasis on the herbs used in them, so that we could direct our focus of research on them and that too exhaustively.

Key words: Rasayan, Age stablizer, Intelligence enhancer, Aphrodisiac

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INTRODUCTION

Rasayan is the seventh division of the eight divisions of Ayurved. The Rasayan drugs and formulations provides longevity, memory, intelligence, freedom from disorders, youthful age, excellence of luster, complexion and voice, oratory, optimum strength of physique and sense organs, respectability and brilliance [1]

Rasayanas treatment of different kinds:

A. Classical methods [2]
   1. Kutipraveshika – Indoor : A special cottage is built on a auspicious ground, in the neighbourhood of holy people and where all conveniences are available. It has three rooms one after another, all-weather worthy. It must be sound proof.
   2. Vatatapika – Open air :This method is outdoor method.

B. Kamya Rasayans (use oriented)
   1. Medhya Rasayan: Promote intelligence – Specific formulation is prescribed.
   2. Prana Rasayan: Promote age-stablization, longevity and vitality- Most formulations are in this category.
   3. Srikamya Rasayan: Promote complexion – Specific formulations are prescribed.

C. Rasayanas based on drug, diet and life style.
   1. Aushdha Rasayana - Drug Based Rasayana.
   2. Ahara Rasayana - Dietary Rasayana.

D. Naimittika Rasayans help to fight a specific disease.
   Presently considerable research is being carried out on various Rasayan Products and the herbs to screen them for various therapeutic benefits. But the research is focusing only one or couple of aspects of Rasayan’s therapeutic benefits. The exhaustive research on all therapeutic benefits of single Rasayan product will be more conclusive validation of claims of classical Ayurvedic texts. Some research on Rasayan drugs and formulations is briefly reviewed below.

Brahma Rasayan: This particular research showed that in the chickens, the supplementation of the Brahma Rasayan during the cold stress, brings about the enhanced action of the enzymatic and non-enzymatic antioxidant that nullify the undesired side effects of the free radicals, generated during the cold stress.[3]
Boerhaavia diffusa: This research work covered a wider spectrum and studied the antistress, adaptogenic and immunopotentiating activity of ethanolic extract of Boerhaavia diffusa in albino mice. The study found that Boerhaavia diffusa extract improved the stress tolerance by significantly increasing the swim endurance test and cold restraint stress. Immunomodulatory activity was evaluated by carbon clearance assay and delayed hypersensitivity test. The extract significantly increased carbon clearance indicating the stimulation of reticuloendothelial system. The extract also enhanced the DTH response to SRBC in mice, indicating stimulatory effects on the lymphocytes and accessory cells types required for the expression of the reaction.[4]

The six Rasayan plants namely Tinuspora cordifolia, Asperagus racemosus, Emblica officinale, Withania somnifera, Piper longam and Terminalia chebula were studied for their Adaptogenic properties as whole aqueous extracts were administered orally to the experimental animals. Then these animals were exposed to variety of chemical, physical and biological stressors. These plants were found to provide protection against these stressors, as judged by using the markers of stress response. In the cisplatin induced alterations in the gastrointestinal motility model, these plants exerted the normalizing effect. The plants also reversed the effect of cisplatin on gastric emptying.[5]

This study was undertaken to assess the potential of Brahmi rasayana as a memory enhancer was administered for eight successive days to both young and aged mice. Elevated plus maze and passive-avoidance paradigm were employed to evaluate learning and memory parameters. Scopolamine was used to induce amnesia in mice. The effect of Brahmi Rasayan on whole brain AChE activity was also assessed. Piracetam was used as a standard nootropic agent. Brahmi Rasayan significantly improved learning and memory in young mice and reversed the amnesia induced by both scopolamine and natural aging. BR significantly decreased whole brain acetyl cholinesterase activity. BR might prove to be a useful memory restorative agent in the treatment of dementia seen in elderly.[6]

In this research of proving that Rasayan bestows longevity[7], the Drosophila melanogaster, the well-known fruit fly, is used. Its genome is sequenced, and humans and Drosophila are known to have 13,601 genes in common. [8] Gene sequences known to be associated with human diseases have been identified.[9] It constitutes a suitable system for testing myriad hypotheses. [8] This research quotes the results from an ongoing series of experiments on lifespan extension by appropriately modified Ayurvedic Rasayanas in animal models. The data are presented indicating lifespan extensions of 51-55% (up to 70-95% in the pilot experiment) in a standard strain of Drosophila melanogaster (Oregon-K) using a standard Rasayana, suitably adapted for insects. In a first experiment, two groups of 20 unmated D. melanogaster strain Oregon-K kept at 22°C received either Rasayana or standard yeast diet; days of death were recorded. Another experiment investigated possible sex differences. Life lengths of all controls were in the strain's usual range: in Experiment 1, control life lengths were minimum 40 to maximum 53 days; experimental group figures were 81-91 days; groups were completely separated, experimental group minimum life length being 28 days more than control group maximum life length. The results are conclusive: the Rasayanas in question
increase D. melanogaster strain Oregon-K life length. The complexity of the formulation suggests that multiple mechanisms are involved - worth further investigation.

Another study demonstrated that Chyavanaprasha (Aan Ayurvedic Rasayan formulation) can provide good radioprotection at a very low non-toxic dose. The study was conducted using 50% Ethanolic extract of Chyavanaprasha on the survival of mice exposed to 10 Gy of gamma-radiation. Treatment with Chyavanaprasha extract, consecutively for five days before irradiation, delayed symptoms of radiation sickness and onset of mortality when compared with the non-drug treated irradiated controls. All doses of chyavanaprasha provided a significant protection against gastrointestinal (GI) death. Chyavanaprasha also provided a significant protection against the bone marrow death.[10]

**RASAYAN-THE DEFINITION** [1]

From the rasayan treatment, one attains longevity, memory, intelligence, freedom from disorders, youthful age, excellence of luster, complexion and voice, oratory, optimum strength of physique and sense organs, respectability and brilliance. It means the attaining the excellent Rasa etc.

**RASAYAN BENEFITS** [11]

As was the nectar to the gods and ambrosia for the serpents so was the Rasayan for the great sages in early times. The persons using Rasayan treatment in early ages lived very long life unaffected by old age, debility, illness untimely death.

One who uses the Rasayan treatment methodically attains not only long life but also the auspicious status enjoyed by the godly sages.

**RASAYAN CLASSICAL PRODUCTS AND REFERENCES:**

All the verses have been translated freely and partially to emphasize the Rasayan properties of Herbs and Ayurvedic formulations. The quantities of herbs and the processing
details have not been taken into consideration. These verses quotes should be referred only for this limited context.

**Chwayanprash** [12]

This is one Rasayan product that is most famous and is still in use commercially. This is rare product that is named on the consumer for whom it was created. Ashwini Kumars created this Rasayan formulation for sage Chwayan Rishi to bestow youth, strength and aphrodisiac power on him in his extreme old age. This product bestowed free health, strength of the senses, enhanced digestive capacity, complexion and longevity even to the aged. This product includes the following herbs. Five hundred fruits of Emblica officinale and forty grams of each of Aegle marmelos, Premna integrifolia, Oroxylum indicum, Myrica nagi, Patla, Sida cordifolia, four leaves herbs i.e. Desmodium gangeticum, Aglaia odorata, Phaseolas trilobus and Teremnus labialis, Piper longam, Tribulas terrestris, Solanum indicum, Bombax ceiba, Pistacia integerrima, Garcinia morella, Vitis vinifera, Celtis orientalis, Pushkarmool, Aquilaria agallocha, Terminalia chebula, Tinuspora cordifolia, Riddhi, Bryonia grandis, Rishbhak, Stychnos nux-vomica, Stereospermum suaveolens, Borhavia diffusa, Leptadonia reticulata, Elateria cardamomum, Crocus sativus, Kaempferia rotunda, Desmodium gangeticum, Acorus calamus roots, Fritillaria roylei and Asclapias curassavica.

The decoction is made of these herbs in water and then it is fried in Sesame oil and clarified butter, adding sugar and preparing lintus. Honey is added after cooling. The four flavoring herbs i.e. Mesua ferrea, Cinnamomum zeylinicum, Elateria cardamomum and Cinnamomum ires are added in the final stage.

**Brahmarasayan** [13]

This formulation is very important although it is not as well known as earlier one. As per the Ayurvedic texts, the famous Rishies of Vaikhanas and Balkhilya group used this Brahmaramsayan and attained immeasurable life span, acquired youth replacing aged physique, endowed with great memory, intellect, concentration and physical strength. The detailed process is being given in this case as this formulation is very important.

This Rasayan contains following herbs. Four hundred grams of each of the root pentad of five groups, given below are boiled in ten times water and reduced to one tenth.

*Vidharigandhadi group*... Solanum indicum, Bombax ceiba, Tribulas terrestris, Desmodium gangeticum and Aglaia odorata

*Bilwadi group*... Aegle marmelos Premna integrifolia, Oroxylum indicum, Myrica nagi and Patla,

*Punarnavadi group*... Borhavia diffusa, Mugdhaparni, Teremnus labialis, Sida cordifolia and Ricinus communis.
Jivakadi group.. Bryonia grandis, Rishbhak, Leptadonia reticulate, Celtis orientalis and Asparagus racemosus Sharadi group. Erianthus munia, Saccharum officinarum, Saccharum arundinaceum, Saccharaum spontaneum and Oryza sativa.

One thousand fresh fruits of Terminalia chebula and three thousand fresh fruits of Emblica officinale are deseeded, crushed and added to the decoction of the pentads. Additionally following herbs, each one hundred sixty grams, are also added to the same. Bacopa monnieri, Piper longam, Convulvolus penicaulis, Plava, Mushta, Emblica ribes, Crocus sativus, Aquilaria agallocha, Madhuka indika, Acorus calamus, Curcuma longa, Mesua ferrea, Elatteria cardamomum and Cardamomum zeylinicum. Also added are sugar forty four kilogram, Sesame oil five kilo one hundred twenty grams and clarified butter seven kilo six hundred eighty grams. It is cooked to form linctus. Finally three kilo eight hundred forty grams honey is added.

Haritiki Rasayan [14]

Terminalia chebula possesses five tastes (Rasa), only devoid of saline taste. It is hot, carminative, light, appetizer, digestive, life promoting, tonic, age stabilizer, strengthens all body organs, provides immunity against all diseases, alleviates skin disorders including leprosy. It cures anemia, piles, phthisis, chronic intermittent fevers, head and heart disease. Additionally it cures impotency, lassitude in the organs, enhances memory and intellect by curing disorders. Emblica officinale has the same properties as Terminalia chebula, except that it is cold.

Thus looking into these actions, the fruits of Terminalia chebula and Emblica officinale should be considered as Nector.
The Second Brahma Rasayan [15]

This formulation is prepared by steaming the Emblica officinale on milk vapours. They are dried in shed, powdered after removing seeds and again added in juice of Emblica officinale along with other herbs i.e. Piper longam, Borhavia diffusa, Asperagus racemosus, Tinospora cordifolia, Acorus calamus, Desmodium gangeticum, Bacopa monnieri, Convolvulas pluricaulis, Tribulas terristris, Aquilaria agallocha and other herbs. The resultant product is soaked in juice of Sida veronicaefolia and dried in shed.

This is the Second Brahma Rasayan, used by great sages in ancient times and provides immunity against diseases, great strength and the long life. It is great detoxifier and provides mind like sages and rock like firmness of body.

Terminalia chebula-Fifth Rasayan formulation.[16]

The decoction of the Triphala (Terminalia chebula, Terminalia belerica and Emblica officinale) alongwith Panchmool (five root pentads) with addition of paste of Piper longam, Tribulas terristris, Puerraria tuberose and some other herbs and cooked in milk and clarified butter. This Rasayan product frees one from fear of old age, diseases, helps attain unique strength of body, senses and intellect and the consumer enjoys maximum longevity.

The Rasayan product made from selected herbs as detailed below [17]
This Rasayan product is prepared by cooking selected herbs like Emblica officinale, Terminalia chebula, Terminalia bellerica, Tinospora cordifolia, Ginger officinale, Piper longum and other with clarified butter and treated further with honey and sugar with iron filings, Emblica officinale powder and juice.

If this Rasyan product is used regularly for three years, the person attains a life span of one hundred years, free from old age, acquires knowledge and the diseases are alleviated. Toxic substances are rendered ineffective by body which becomes muscular like stone and the person becomes invincible.

Special Rasayan product of Emblica officinale, Borhavia diffusa, Puerraria tuberose with other herbs [18]

By its use, the life span increases to hundred years without the effect of weakness of any kind, memory and intelligence remains intact, immunity protects against the diseases and great aphrodisiac powers are bestowed upon.

Embelia ribes Lick-Vidang Avleh [19]

The powders of Embelia ribes and Piper longum, sugar, sesame oil, clarified butter and honey are mixed in prescribed quantities and stored in a vessel coated with clarified butter internally. This product provides all the Rasayan benefits.
The best quality fruits of Semecarpus anacardium are collected in the late summer and are stored in the granary of barley. They are taken out in the early winter. At first ten fruits are crushed and boiled with ten times water. When reduced to one eighth, it is mixed with milk. It is consumed after smearing the inner part of mouth with clarified butter. After the intake of the extract, one should have diet of special variety of rice with milk and ghee. This dose can be increased by one fruit daily to the maximum of thirty fruits. After one has completed course of one thousand fruits, one should continue the special diet.

This treatment bestows the long age of one hundred years without senility. The benefits are same as mentioned above.

Rasayan formulation of Ten Age Stablizing herbs. [21]

The juice of Sida cordifolia, Santalum album, Aquilaria agallocha, Acacia catechu, Woodfordia floribunda, Ougeinia dalbergioides and all the ten herbs of Age Stablizing group are used to prepare this Rasayan product. These age stabilizing herbs include Tinospora cordifolia, Emblica officinale, Terminalia chebula, Bacopa monnieri, Anogeissus latifolia, Asperagus racemosus, Pluche lanceolata, Leptadonis reticulate, Shweta and Borhavia diffusa.

Semecarpus anacardium based Rasayan formulation Bhallatak Kshaudrum [22]
In this formulation, the fruits of Semecarpus anacardium, placed in a heating vessel which is placed under ground are heated and the extract is collected in another vessel placed below. This is mixed with honey and clarified butter in certain ratio.

The regular use of this product results in one hundred years of youthful age. The other benefits are as stated earlier.

**Medhya Rasayan [23]**

The Medhya Rasayan is specifically intellect promoting and bestows longevity. It also provides immunity against diseases, strength, complexion, voice and digestive capacity. The herbs used include juice of Bacopa monnieri, the powder of Glycerriza glabra in milk, the juice of roots, stem and flowers of Tinuspora cordifolia and paste of Convolvulus pluricaulis.

**Piper longam Rasayan (Pippalirasayan) [24]**

Piper longam is impregnated with alkali of Butea frondosa and then frid in clarified butter. These piper longam fruits should be taken with honey in dose of five, seven, eight or ten before or after meal for a year. This Rasayan alleviates cough, phthisis, dyspnœa, hiccups, throat disorders, piles, paleness, voice disorders, chronic rhinitis, swelling and intermitant fevers.

**Pippalivardhmanrasayan [25]**
The intake of one thousand Piper longam over a period of time has Rasayan effect. On the first day, ten Piper longam fruits must be taken with milk. From second day onward, ten fruits should be increased daily. From eleventh day, the number of fruits should be reduced daily by ten fruits till it comes to ten. (nineteenth day) The person should take special diet of special variety of rice with clarified butter.

The use of this Rasayan product is beneficial for longevity, bulk promotion and voice. It also alleviates spleen enlargement. It stabilizes youth and promotes intellect.

**Triphala Absolute Rasayan** [26]

Triphala along with six metals including gold and Acorus calamus or with Piper longum and Emblica ribes or with salt, and taken with honey and clarified butter i.e. ghee for a year provides intellect, memory and strength, promotes life span and excellence and alleviates senility and diseases.

**Shilajeet as Rasayan** [27]

The earlier verses described that Shilajeet originates from four metals i.e. Gold, Silver, Copper and Iron. The potency of Shilajeet enhances if impregnated with the decoctions of drugs alleviating Tridosha, individually or collectively. These verses give the process. This preparation should be taken for seven weeks (superior), three weeks (medium) or one week. (inferior) The dose is also threefold i.e. forty, twenty and ten grams. This preparation bestows happy and long youthful life, immunity against diseases and promotes the memory, intellect and excellence.
Shilajeet Rasayan formulation [28]

These verses specifically contraindicate the use of food that causes burning and hyperacidity and heavy food like horse gram while one is on Shilajeet Rasayan regimen. The milk, buttermilk, soups and water are udes to dissolve Shilajeet.

The Shilajeet Rasayan provides immunity against all diseases. It provides great energy to the healthy person if one complies with the dose and schedule.

Indra’s Absolute Rasayan formulation [29]

This Rasayan, described by chief of Devtas and also instrumental in bringing Ayurveda to the great sages, Indra, contains important herbs, metals including gold and silver, corals and pearls. Cow milk, clarified butter, sesame oil, juice of Emblica officinale and honey are used for processing. The important herbs, used for providing Rasayan activity include ten herbs of each of the groups of

Vitality promoting i.e. Pueraria tuberosa, Rishbhak, Asparagus racemosus, Withania somnifera, Phaseolus tribolus, Teamnus labialis, Leptadonia reticulata, Bassia latifolia

Strength promoting i.e. Citrullus cococynthis, Rishbhi, Atirasa, Rishyaprokta, Holostemmm rheedianum, Withania somnifera, Shhira, Soymida febrifuqa, Sida cordifolia, Asparagus racemosus.

Bulk promoting i.e. Kshirini, Rajakshavak, Withania somnifera, Kakoli, Ksheerkakoli, Vatyayani, Bhardadauni, Bhardwaji, Payasya, Rishyagandha, Age stabilizing i.e. Tinospora cordifolia, Emblica officinale, Terminalia chebula, Bacopa monnieri, Anogeissus latifolia, Asparagus racemosus, Pluchea lanceolata, Leptadonis reticulate, SHWETA and Borhavia diffusa.

Plus other herbs used include acacia catechu, Pterocarpus marcipium, Phonix sylvestris, Madhuka, Mushta, Utpala, Mridvik, Vidang, Acocus calamus, Asparagus racemosus, Piper longam, Payasya, Agaru, Riddhi, Nagbala, Dhava, Solanium xanthocarpum, Terminalia chebula,
Terminalia bellerica, Emblica officinale, Vidari, Santalum album, Saccharum officinarium, Shara, Gmelina arborea and Ougeinia dalbergoldes.

Indra Rasayan is detoxifier and provides immunity against all diseases, promotes longevity, provides strength to psyche, memory, intellect, physique and senses. It is aphrodisiac. It promotes energy, complexion and voice.

REFERENCES


