ABSTRACT

Introduction: Ayurveda is the life science which deals with every aspect of the individual. It has two main aims i.e. to protect the health of healthy individual and to cure the disease of diseased one. Rasayana is the branch of Ayurveda which is related with the protection of health and longevity. The herbs, herbo-mineral drugs and any activity that maintains the youthfulness and cures the disease are known as Rasayana. The average lifespan of Indian (68.35 yrs) is comparatively lesser than that of the people of growing countries like Japan (83.84 yrs), China (75.99yrs) and United States (78.74 yrs). The aged people are source of inspiration and knowledge for the younger generation and their role is vital in the development of society as well as nation. Hence, it is the need of time to adopt the ancient wisdom of Rasayana in various aspects for the protection as well as maintenance of their health and longevity. Keeping this in view, the present study has been taken into consideration. Materials and Methods: Ayurvedic classics and literature related to Rasayana were thoroughly reviewed, collected, analysed and presented systematically. Aims and objectives: To screen the fundamental aspects of Rasayana therapy along with its benefits allocated in the Ayurvedic classics and allied literature; to explore the practical utility of Rasayana therapy in present era. Discussion: Rasayana are the medicines with quality of forming Ojas. It also tones up of healthy individuals. Rasayana increases natural immunity, enhances general well-being, maintains physiology of the organs in proper way, and delays the ageing. Rasayana increases the immunity power hence one is protected by the infections as increased immunity makes one to fight against the diseases and thereby delays the ageing process. Conclusion: Rasayana therapy provides longevity, increases memory and intelligence, makes freedom from diseases, maintains the youthful age, improves excellence of luster, complexion of voice, and provides maximum energetic body as well as sense organs. It also creates peace, happiness and love. The present work provides general introduction of Rasayana, its historical review, descriptions available in literature along with the physiological aspects of Rasayana and its relevance in modern era.

KEY WORDS

Rasayana, Longevity, Ageing, Degenerative, Immunity.
INTRODUCTION

The word ‘Rasayana’ is composed of ‘Rasa’ & ‘Ayana’. Rasa means the final extract of dietary substances. Whatever we take it is first synthesized into Rasadhatus\(^1\).

‘Ayana’ is the process by which biochemical metamorphosis takes place. It is known as Rasakriya. Rasayana theory consists of two main principles-

A) Conservation of energy and

B) Transmutation of energy\(^2\).

Ayurveda consists of eight branches in which Rasayana (Rejuvenation) is one among them. Rasa has different meanings like juice, taste, essence etc. Rasa strengthens our body, increases the immunity and maintains the physique as well as mind healthy. Rasayana provides complete physical, psychological and spiritual health; thereby one can achieve the blissful life. Rasayana are the herbomineral drugs and micro-nutrients that provides immunity, vitality and longevity as well as alleviates the psychological pathology. Such person is required to get the goal of life, purusharthachatushtaya (virtue, wealth, enjoyment and salvation)\(^3\). Moreover, out of these three desires (i.e. longevity, property and heaven), the desire of longevity and blissful life (Praneshana) is the foremost as most of the desires can only be achieved by a healthy people. A very interesting reference regarding use of Rasayana has been found that Rishi Chyawan regained his youth by use of Chyawanprash\(^4\). Today is the age of busy lifestyle and one is not capable to follow the basic norms of healthy and happy life because of carelessness and professional obligations. Therefore, they encounter multiple diseases that are elaborated by Acharya Charaka as explanation of Gramya Ahara\(^5\). The factors of Gramya Ahara are practised today too that invites fastened ageing process and greater number of pathologies. Gramya Ahara are low quality diet, the combination of diets opposite in property, vidahi and even not following the norms of nutrition as explained in classics. In addition to these factors, non suppression of avarice, sadness, frightness, irritation are also considered under Gramya activities.

Because of these components, the nutritious fluid of better standard cannot be built. Strotoavarodha is manifested. Therefore, nutrition of additional dhatus will also be hindered and disparity of doshas occurs which causes the individual susceptible for sufferings from various dhatukshaya and ojokshaya. For these consequences, Ayurveda was spreaded by lord Indra with the goal of eliminating pre mature ageing and ill health so that one can entertain the long life. Therefore, Rasayana (Rejuvenation) therapy is taken as a device
to achieve psycho-somatic health as well as salvation\(^6\).

**AIMS AND OBJECTIVES**

To analyse the concepts of *Rasayana* therapy and to assess the benefits of *Rasayana* for the betterment of health and longevity.

**MATERIALS AND METHODS**

Ayurveda classics and the journals pertaining to *Rasayana* therapy were analyzed to explore the concept as well as the applicability of *Rasayana* therapy.

**OBSERVATIONS**

**Historical perspectives of *Rasayana*:**

Although the systematic description is not available, some of the references regarding *Rasayana* are found. Vedas are the main source of knowledge for Indians and are considered as the oldest literature. Every human being wants to achieve long life and to live at least for hundred years ‘Jivam sharada shatam’ in perfect health. In Atharvaveda clear description is available about the desire of human beings to become ‘Ajara’ and ‘Amara’ that means, to achieve healthful durability that is only feasible by implementation of *Rasayana* therapy\(^7\). Similarly *Puranas* are also the old literatures delivered by ancient sages based on Vedas. In *Garudpurana* vivid description of *Rasayana* is found in the chapter 146 to 200. Similarly, *Agnipurana* has narrated the *Rasayana* drugs like *Sidha Aushadhani* in the chapter (278) and *Sarvarogaharini Aushadhani* in the chapter (279). *Agnipurana* has also mentioned the description of “*Mrit Sanjivani*” in the chapter (285)\(^8\). Apart from these, *Matsyapurana* has mentioned a very interesting fact that Rishi Kashyap procured longevity by the implementation of Rasayana. Adequate and detailed description of *Rasayana* is found in Brihattrayi, Laghutrayi and other Ayurvedic texts of Samhita kala. In Charaka Samhita, the 1\(^{st}\) chapter of Chikitsa Sthana is devoted to *Rasayana* therapy which indicates the importance of *Rasayana* therapy as acknowledged by Charakacharya for its marvellous effects on longevity and disease elimination process. Charaka has mentioned several *Rasayana Yogas* in the first chapter of Chikitsa Stahna. Acharya Sushruta has described *Rasayana* in Chikitsa Sthan in four chapters i.e. from 27\(^{th}\) to 30\(^{th}\). Acharya Sushruta has not very much explained about *Rasayana* therapy because he has explained more elaborately about surgical procedures. Some new *Rasayana* drugs and *yogas* are explained by Acharya Sushruta. The description of *Rasayana* therapy is found in
49th chapter of Uttara tantra of Ashtang Samgraha and 39th chapter of Uttara tantra of Ashtang Hrudaya give an idea that Rasayana therapy was less admired because the therapy related to the treatment of diseases were in priority at that time. The description of Rasayana resembles close to Charaka Samhita. Various new Rasayana yogas have been described in detail in these classics. Numerous details of Rasayana is found in Sharangadhar Samhita Purvakhanda 4th chapter, Kalpa sthan of Kashyapa samhita, in Chikitsa kalika written by Testaacharya etc. It shows that Rasayana therapy is vastly used for the maintainance of health in Samhita period.

**Rasayana therapy in Modern Era:** Due to stressful and erroneous life style, environmental pollution etc. human beings are badly affected and they are susceptible to develop premature ageing and various disorders. Rasayana therapy is proved as more effective therapy against these harmful effects. Most Rasayana medicines have distressing as well as adaptogenic property.

**Need of Rasayana:** There are various kinds of diseases mentioned in Ayurveda and Swabhavabalapravrittavyadhi (natural diseases) includes Kshudha (hunger), Nidra (sleep), Pipasa (thirst), Jara (ageing) and Mrityu(death). These disorders can not be healed completely but can be managed as Rasayana therapy is proved more effective in delaying the jara (ageing). Acharya Chakrapani mentions that these diseases can not be healed completely but Rasayana therapy has excellent role in treating these sufferings by the example of Chyavan Rishi who regained his youth by Rasayana therapy. Acharya Dalhana has made its use mandatory for the establishment of whole life happy and to be free of premature ageing which are caused due to irregular food pattern and isolated life style in modern era. Rasayana also strengthens themind capacity, facilitatethe person to possess psychological wellbeing and to achieve the salvation.

**Types of Rasayana:** For the health and longevity, there are several kinds of Rasayana therapy mentioned in classics.

Considering Dravya and Aadravya –

(i) **Dravyabhuta Rasayana therapy** –It signifies materials. The type of therapy in which several types of herbs, herbo-mineral drugs and diets are taken is called as DravyabhutaRasayana therapy.

(ii) **Aдрavyabhuta Rasayana therapy** –It signifies the activities without use of any materials. If the activities like well behaviour, meditation etc. are used as Rasayana therapy then they are known as Aдрavyabhuta Rasayana therapy. It is also categorised as Achara Rasayana.

**As per consideration of Scope**
I. Kamya Rasayana – It is used as some noteworthy desires. It has three types –
   a. Prana kamya – Promotes vitality and longevity. e.g. – Amalaki, Haritaki, Guduchi etc.
   b. Medha kamya – Promotes intellect and recollection power of mind. e.g. – Sankhpuspi, Brahma, Mandukpurni, Vacha, etc.
   c. Srikamya – Promotes complexion. e.g. – Ashwagandha, Amalaki, Guduchi, Triphala, etc.

II. Naimittika Rasayana therapy – They are used to nurture the systems and tissues of the body and to protect them from harmful manifestations.
   Examples –
   • VataVyadhi – Guggulu, Chyawanprash, Shilajatu etc.
   • Skin Diseases – Tuvraka, Khadira, Guduchi, Bhringaraja etc.
   • Prameha – Shilajatu, Amalaki, Haridra etc.
   • Urinary Disorder – Shilajatu, Gokshura, Punarnava etc.

III. Ajasrika Rasayana therapy – These are dietary substances used for the nutrition. e.g. Cow’s Milk, Ghee, Honey etc.

On the consideration of diet, drug and life style
I. Aushadha Rasayana therapy – Drugs and herbs are included.

II. Ahara Rasayana therapy – Diet and nutrition are included.

III. Achara Rasayana therapy – Based on behavioural code of conduct. Maintaining non-violence and calm behavior, keeping away from alcohol and lust, being cool minded, patience, worshipping God, respecting elders are the methods of Achara Rasayana.

As per consideration of Administration
The types are-
I. Kutipraveshika Rasayana therapy – The word Kutipraveshika is composed of two words. i.e. ‘Kuti’ means ‘A cottage’ and praveshika means ‘To enter’. Hence during this method, one is made ready to remain in a well designed room for a given period then the individual is provided the Rasayana drugs there and before administration of the therapy one is subjected to Panchakarma therapy.

II. Vatatapika Rasayana therapy – The word Vatatapika is composed of two words, ‘vata’ means ‘Air’ and ‘Atapa’ means ‘Heat’ or ‘Sun’. Hence the person is kept in open air and heat during the process of this Rasayana therapy. It is also feasible during normal work and duties. It is also categorized as open air therapy.

Materials – taken as Rasayana drugs:
• Amalaki – Stops ageing mechanism by cutting off the catabolic pathway.
• **Louha**¹⁹—for the management of Pandu (Anemia), allergies and inflammations.

• **Haritaki**²⁰—Eliminates waste products and improves digestions.

• **Pippali**²¹—Useful in respiratory disorders and makes the people physically strong.

• **Shilajatu**²²—Provides strength to the physique.

• **Triphala**²³—Cures digestive system, skin and eye disorders.

• **Medhya Rasayana**²⁴—Brahmi, Shankhpushpi, Vacha etc. improves intellect and memory power.

• **Haritaki Rasayana**²⁵—Improves Strength, gives healthy life and provides longevity.

• **Chyawanprash**²⁶—Improves Immune System of body and helpful in respiratory system disorders.

### Preparation for Rasayana therapy:

The vital requirement for the person undergoing Rasayana therapy is to do detoxification process to achieve the maximum benefit of the therapy²⁷. The samshodhana processes like Vamana, Virechana etc. cleans the body as well as mind. A cleaned body and mind is similar to a clean cloth that easily takes the colour but not like a soiled cloth that does not take the colour even it is kept in colour of best quality.

### PRECAUTIONS:

Some precautions must be taken during Rasayana therapy to get the maximum benefit of therapy. They are²⁸:

#### Aharaja (Dietary factors):

- Substandard diet.
- Sour, salty, pungent and alakali substances.
- Meat and dry vegetables.
- Intake of sprouted pulses.
- Mutually contradictory substances.
- Derivatives of sesame. etc.

#### Viharaja (Lifestyle factors):

- Day sleep.
- Regular sexual intercourses.
- Irregular and excessive exercise.
- Over exertion and work. etc.

#### Manasika (Psychological factors):

- Excess fear, anger, grief, greed, infatuation etc.

### Contraindications during Rasayana (Rejuvenation) therapy²⁹:

These individuals are contraindicated for Rasayana therapy:

- Self restraint (Anatmvan).
- Lazy (Alasa).
- Poor (Daridra).
- Careless (Pramadi).
- Immoral (Vyasanī).
- Sinful (Paapkrita).
• Person irrespecting medicines (Bheshajapamani).
And if such individuals are undergone for Rasayana therapy then they won’t be benefitted due to following reasons:
• Ignorance (Agyanat).
• Non commencement of the treatment (Anarambhat).
• Unstability of mind (Asthirachittatvat).
• Poverty (Daridrayat).
• Lack of self control (Anayattvat).
• Unrighteousness (Adharmat).
• Non- availability of drugs (Aushadhaalabhat).

Benefits of Rasayana therapy

–It has several benefits and its importance in different aspects are:
• Revitalizes the body physiology.
• Maintains youthful and graceful.
• Improves immune system.
• Increases resistances to diseases.
• Increases physical and mental strength.
• Improves memory power.
• Preserve health and longevity.
• Increases the memory.
• Provides cheerfulness in life.
• Prevents from pathologies by making immune system stronger. etc.

The Rasayana indicated for longevity of life and prevention of diseases:
• Brahmarasayana : provides longevity and maintains youthfulness.
• Dwitiyabrahmarasayana : provides longevity, strength and disease free state.
• Chyavanaprasa : maintains memory power, health, longevity, strengthens digestive power and prevents from ageing disorders.
• Chaturthaamalakarasayana : maintains youthfulness and disease free state.
• Amalakaghrita : makes people disease free for 100 years and increases the memory as well as immunity.
• Amalakavaleha : makes people healthy for 100 years and increases the memory as well as immunity.
• Nagabalarasayana : makes people youthful for 100 years and increases the intelligence.
• Amalakayasa Brahmarasayana : made by Brahma himself to maintain the lifespan of 1000 years, intelligence, strengthen the sence organs and to alleviate the ageing process.

The Rasayana indicated in management of diseases:
• Bhallataka Rasayana:Kaphajaroga (The diseases due to kaphadosha).
• Endra Rasayana: Shwitra (leucoderma), Kushtha (skin diseases),
Pleeha (spleenomegaly), Vishamjwara (fever)\(^4^2\).

- Pippali Rasayana: Hikka (hiccup), Shwas (dyspnea), Grahani (digestive disorders), Arsha (haemorrhoids), Peenasa (coryza), Kasa (cough), Pandu (anaemia), Shopha (oedema)\(^4^3\).

- Vardhamanpippalirasayana: 1) Pleeha (spleenomegaly), Udar (ascites)\(^4^4\).

- Vardhamanpippalirasayana: 2) Vatashonit (gout), Shwas (dyspnea), Grahani (digestive disorders), Kasa (cough), Shopha (oedema), Pleeha (spleenomegaly), Pandu (anaemia)\(^4^5\).

- Shilajatu Rasayana: in many diseases with appropriate adjuvants\(^4^6,4^7\).

- Tuvaraka Rasayana: Kushtaroga (skin diseases)\(^4^8\).

**System Specific Rasayana**\(^4^9\):

<table>
<thead>
<tr>
<th>Table 1 System specific Rasayana drugs</th>
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<td><strong>System</strong></td>
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</tr>
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<td>Cardiac system</td>
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<td>Respiratory system</td>
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<td>Urinary system</td>
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<td>Female Reproductive system</td>
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<td>Male Reproductive system</td>
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<td>Endocrine system</td>
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<tr>
<td>GIT</td>
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<tr>
<td>Musculo-skeletal system</td>
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<td>Nervous system</td>
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</table>

**Decadewise bio losses and recommended Rasayana drugs:**

The physiology of Human body shows remarkable biological changes from birth to death. Sharangadhara Samhita\(^5^0\) and Ashtanga Sangraha\(^5^1\) has described the sequential bio-losses as per decades with respect to ageing. The decadewise bio-losses and recommended drugs for their management are mentioned in Table 2.

<table>
<thead>
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<th>Table 2 Decade-wise Bio-losses:</th>
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<tr>
<td><strong>Decade of life</strong></td>
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Mahato et al.
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RESEARCHES UNDER THE ARENA OF RASAYANA:

Rasayana in Cancer: Oral administration of rasayana significantly increased total WBC count, bone marrow cellularity, natural killer cell and antibody contingent toxicity in gamma radiation (4Gy) exposed mice. Rasayanas reduced radiation induced peroxidation in liver. Rasayana avaleha gave the superior results for overcoming unfavourable effects of chemotherapy like mucocitis, nausea, xerostomia, fatigue, vomiting, alopecia.

Rasayana in Tuberculosis: Rasayana compounds are advantageous in the treatment of tuberculosis by anti-Koch’s treatment. It significantly decreases cough, fever, dyspnoea and over weight condition.

Rasayana in Rheumatoid arthritis: Vardhamanpippalirasayana is effective in the condition of Amavata (Rheumatoid arthritis). A significant decrease in erythrocyte sedimentation rate was also noted.

Rasayana in Ageing: In the management of memory impairment, stress and depression of aged person, guduchyadimedhyarasayana showed effective results.

Rasayana miscellaneous: The Rasayana drugs shows preventive actions like phyllanthus emblica plays chondroprotective role and inhibits the actions of collagenase type 2 & hyaluronidase in vitro. Amalaki Rasayana is effectively demonstrated to grow the age and resistance for death caused by lack of food in Drosophilamelanogaster mode. Rasayana medicines have antioxidants property and acts as better immunomodulating, hepatoprotective and nephroprotective agents. One research on Rasayana showed that it has anti-tumour,
immunomodulatory and antioxidant functions\textsuperscript{61,62}.

**Rasayana in infectious diseases:** Rasayana prevents the body from infection and from arresting the infective diseases by promoting the immunity of the individual and breaking the linkage of infective organisms and resistivity. Hence Rasayana has big importance in cases of serious infections of immunocompromised patients. *Emblica officinalis* and *Semecarpus anacardium* enlighten the contribution of Rasayana as immunopromoter and immunosuppressant quality respectively in different infections. *Achara Rasayana* protects the patients from infections and psychological threshold is managed by them as neurotransmitters are regulated by *Achara Rasayana*\textsuperscript{63}.

**Rasayana for social life:** By modernization and competitory world the individual, social and psychological life of one is affected. The quarrel, selfishness, greediness, violence and crime rate is also increasing day by day. In such conditions *Achar rasayana* in lifestyle will help one for social and personal life to keep away from such threats.

**Achara Rasayana (Behavioural Rejuvenation)**\textsuperscript{64}: The activities that promote the health and happiness are known as behavioural Rasayanas (Achara Rasayanas). They strengthen our life force by stimulating positive emotions and experiences which promote the production of *Ojas*. Uplifting emotions and a positive approach strengthens the mind giving rise to good health along with longevity. The most important trigger is the regular experience of our inner life and the self-consciousness. Ayurvedic texts mention a number of behavioral Rasayanas;

- Encourage positive emotions, experiences and do not give too much space to negative feelings. Happiness is the best tool for eliminating mental *Ama*.
- Make friendship and always stay with wise people who inspires you to strive for greater knowledge, wisdom, love, compassion and charity.
- Be truthful and always speak the truth.
- Maintain your personal integrity which enhances your self-esteem.
- Maintain cleanliness in all things: mental, physical and environmental. A clean and beautiful environment is helpful for being healthy.
- Be charitable and kind. Give money, knowledge, advice and encouragement to others.
- Follow your own social, cultural and religious norms so as to make your sound identity in your society.
Be quiet and practise your own kind of meditation or contemplation.

Do what you love to do and experience pure joy without hurting anyone else – for instance, by painting or watching nature.

Cook for your family with love and respect. If you are eating out, say prayers over your food to remove any negativity.

Observe silence as it is very nourishing.

Marinating cleanliness is considered important tool for living a long life.

DISCUSSION

There are various references of Rasayana found in Vedas. Puranas like Agni Purana and Matsya Purana have also many references of Rasayana therapy. Similarly in Brihattrayi and other Ayurvedic classics, different Rasayana yogas for different purposes are described. Rasayana are the tool to manage the swabhavabalapravittavyadhi like kshudha (hunger), nidra (sleep), pipasa (thirst), and mrityu (death). There are many kinds of classifications of Rasayana for e.g,1) As per dravya and Adravya 2) As per scope i.e. Kamya, Naimittika and Ajasrika and 3) As per administration like kutipraveshika and vatatapika. The materials like Ashwagandha, Haritaki, Shatavari and Pippali are the Rasayana drugs used for the management of nervous disorders, digestive disorders, gynaecological disorders and respiratory disorders respectively. Brahmarasayana, Chyavanprash, Amalakavaleha, Nagabalarasayana e.t.c. are some of the Rasayana used for the longevity and prevention of diseases. Some more specific use of Rasayana are as the use of Endra Rasayana in Shwitra (leucoderma), Kushta (skin diseases), use of Vardhaman Pippali Rasayana in Pleeha (splenomegaly), Udar (ascites). Similarly, some system specific Rasayana drugs are also mentioned like Arjuna, Pushkaramoola, Guggulu are used in Cardiac system disorders, Bharangi, Vasa, Kantakari are used in Respiratory system disorders. Ayurvedic classics have also described the decadewise losses as well as the Rasayana appropriate to manage such losses. In addition to these, many researches are done on different Rasayana for the management of different chronic diseases like cancer, tuberculosis and geriatric disorders.

CONCLUSION

Rasayana is a science of rejuvenation basically aims at prolonging life span without disease, growing intellect, youth, sweetness of voice and maintaining the physiology of the body. Rasayana clearly deals as branch of Ayurveda that balances
and restores the health of person and also promotes the immune system to be strong enough to fight against different diseases. The *Rasayana* therapy is wonderful therapy and it promotes healthy life, maintains positive health, cure for certain diseases of aged people and prevents from early ageing. It provides longevity with uses of different Ayurvedic herbs, oils, foods and behaviours.
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