

RASAYANA A MULTIDIMENTIONAL THERAPY: A REVIEW

R.B. Patil¹,

R.R. Gayal²

¹Lecturer Department of Panchakarma, Shri.A.D.A.M.C. Ashta, Maharashtra, India

ABSTRACT

Rasayan chikitsa (Rejuvenation therapy) is a glorious part of ayurveda. It is beneficial to maintain the health and to treat the diseases. In ayurvedic classics plenty of rasayanas are explained for longevity as well as management of diseases. In present era the medical science has developed in various directions, newer technique, different diseases are being invented. The different researches have been conducted in the field of rasayan. So here an effort is made to review the classical knowledge and applicability of rasayan in healthy and diseased condition. Along with this the role of rasayan in succession of stem cell therapy, genome stability, tuberculosis, avoidance of hazards effect of radiation therapy in cancer, rheumatoid arthritis, in social health etc. has been reviewed. In this way the different dimensions of rasayan has been reviewed in this article.

Keywords: Ageing, Vaya, Ahara-Vihara, Rasayana

INTRODUCTION

Rasavana chikitsa (Rejuvenation therapy) is one among the eight branches of ayurveda. 1 Rasayana chikitsa (Rejuvenation therapy) deals with healthy life and longevity of human being. It plays vital role in preservance of health and equally important in treating diseases. In last few decades the medical science has developed in various directions. The plenty of techniques have been incorporated and many diseases are being invented. Along with its classical importance and utility this therapy is useful in different medical problem of present era. This rejuvenation therapy is very essential to human being for both healthy and diseased. There are many dimensions of this therapy in which it is boon to mankind.

Classical view: Rasayan means the way for attaining excellent rasa etc. dhatus.²

The *Rasayan tantra* (science of rejuvenation) has for its specific objects the prolongation of human life and the invigoration of memory and the vital organs of man. It deals with recipes which enable a man to retain his youthful vigour good up to an old age and which generally serve to make the human system invulnerable to disease and decay.³ The Rasayan is beneficial to treat the disease and prevention of early aging.⁴ The rasayan is classified as:

- a) Kutipraveshik and vatatpika.^{5, 6}
- b) Kamya, Naimittik, Ajasrik.⁶
- c) Samshodhana, samshanan.⁶
- d) Aachar rasayan⁷

Benefits of rasayan: Rasayan therapy is useful to attain longevity, memory, intelligence, health, youthful age, excellence of lustre, complexion, voice, strength of physique, sense organ good speech brilliance.⁸

² Professor and HOD Department of Kayachikitsa, B.S.D.T.Wagholi, Maharashtra, India

The *rasayan* indicated for longevity of life and prevention of diseases:

Brahma rasayana⁹
Dwitiya brahma rasayan¹⁰
Chyavanaprasha^{11, 12}
Chaturtha amalaka rasayan¹³
Amalaka ghrita¹⁴
Amalakavaleha¹⁵
Nagabala rasayan¹⁶
Abhayamalaka rasayan¹⁷

The rasayan indicated in management of diseases:

Bhallataka Rasayana: Kaphaja roga (The diseases of kapha dosha). ^{18, 19}

Endra Rasayana: shwitra (leucoderma), kushtha (skin diseases), pleeha (spleenomegaly) vishamjwara (fever).²⁰

Pippali Rasayan: kasa(cough), shwas(dysponea), hikka(hiccup), arsha(haemorrhoids), grahani(digestive disorders), pandu(anaemia), peenasa(coryza), shopha(oedema).²¹

Vardhaman pippali rasayan: pleeha(spleenomegaly) udar(ascites)²² kasa(cough) shwas (dysponea) grahani(digestive disorders) pandu(anaemia) shopha(oedema) pleeha(spleenomegaly) vatashonit(gout)²³

Shilajatu Rasayan: Useful in multiple disorders with proper adjuvant^{24, 25}

Tuvaraka Rasayan: Kushtha roga (skin diseases) ²⁶

Medhya Rasayana: These rasayanas are beneficial to improve the intellectual which are *mandukparni swaras*, *yashtimadhu churna* with *ksheer*, *guduchi swaras*, and *shankhapushpi kalka*.²⁷

Aachar Rasayan: Social conduct and ethics which works as a rejuvenation. ²⁸

RESEARCHES IN THE FIELD OF RASAYAN:

Rasayan in cancer: Administration of rasayanas was found to enhance the proliferation of spleen cells significantly especially in the presence of mitogen. A similar result was also seen with bone marrow cells. However mitogenic stimulation could not be observed .Esterase activity was found to be enhanced in bone marrow cells indicating increased maturation of cells of lymphoid linkage.²⁹

Oral administration of rasayan significantly increased total WBC count, bone marrow cellularity, natural killer cell and antibody dependant cellular cytotoxicity in gamma radiation (4Gy) expose mice. Rasayanas reduced radiation induced perioxidation in liver. Rasayan avaleha gave better results in controlling the adverse effect of chemotherapy and radiotherapy such as nausea, vomiting, mucocitis, fatigue, xerostomia, alopecia. 31

Rasayan in Tuberculosis: Rasayan compound is beneficial in the management of tuberculosis with anti-Koch's treatment. It significantly decrease cough, fever, dyspnoea, haemoptysis, and increased body weight.³²

Rasayan in rheumatoid arthritis: Vardhaman pippali rasayan is effective in the management of Aamavata (rheumatoid arthritis). A significant decrease in erythrocyte sedimentation rate was also noted³³.

Rasayan in geriatrics: In senile memory impairment guduchyadi medhya rasayan showed memory enhancement, antistress, antidepressant and anxiolytic properties.³⁴ Rasayan in intelligence: centella asiatica fresh leaf extract showed a significant increase in the dendritic length (intersection) and dendritic branching points in amygdaloidal neuron of the rats, one of the regions

concerned with learning and memory.35 Rasavan in Genome stability: As per the studies on molecular correlates of genomic stability in rat brain cells following aamalaki rasayan therapy, the result convincingly indicate that, in control animals there was a distinct increase in DNA damage with age in neurons and astrocytes. But the animals treated with rasayan showed significantly less DNA damage in brain cell demonstrating beneficial effect of rasayan therapy towards maintenance in genomic stability.DNA damage may be proximal cause of aging.³⁶ Rasavan in stem cell therapy: Regeneration of tissues after the disease condition like osteoarthritis, age related macular degeneration (AMD), Alzheimer's, injuries, trauma, heart attack, stroke, accident, or aging remains a challenge to modern medicine. Tissue-specific Rasayanas could be tried for differentiation of stem cells and regenerate specific tissue of choice. Rasayanas known for their tissue specificity could also be tested in stem cells to reveal their differentiation inducing activity. In preliminary experimentation on Medhya Rasayana, there was a expression of nestin an early marker of neuronal stem cells differentiation when stem cells were treated with Rasayana extracts³ The vitamin C can regulate proliferation as well as differentiation of stem cells concentration.³⁸ upon its depending Aamalaki is rich source of vitamin C and may be acting through similar pathways. Ayurvedic preparations like Rasayanas could be explored for their role in potentiating stem cells for clinical applications.³⁹ Piper longum volatile oil extract improves the proliferation on mesenchymal stem cell 40

Rasayan miscellaneous: The *Rasayana* herbs are having tissue protective effects such as, chondroprotective activity of *Phyllanthus emblica* inhibiting the activities of hyaluronidase and collagenase type 2 *in vitro*. ⁴¹

Amalaki Rasayana has effectively demonstrated increase in median lifespan and starvation resistance in Drosophila melanogaster mode. 42

Rasayana drugs are rich in antioxidants and are good hepatoprotective, nephroprotective, and immunomodulating agents.⁴³

It has also been reported that *Rasayanas* have immunomodulatory, antioxidant, and antitumor functions. 44, 45

Rasayan in infectious disease: Rasayan is used to prevent the infection and to arrest the infective diseases promoting the immunity of the vital essence of the respective body tissue as being affected and break the intensity of the processing of interaction between the micro organism and body resistance with the programmed theism.

The significance of the chronology of the rasayan has assumed greater importance as a cause of serious and fatal infections in immunocompromised patients. The uses of embelica officinalis and same carpus anacardium enlighten the views of immunopromotion and immunosuppressant quality respectively in different infection.

In almost all infective diseases are prevented to the practice of achar rasayan as it regulates the neuro transmitters to maintain the psychological threshold so that the individuals are kept themselves alert from the source of infection. 46

Rasayana for social life: In modern civilisation and competitive world the psychological and social life of person is disturbed.

The quarrel and crime rate is also significantly increasing. In such conditions incorporation of achar rasayan in lifestyle will definitely helpful for personal as well as social life to control these hazards.

DISCUSSION:

Rasayan therapy is a boon to mankind. Different rasayan has been explained in the classics which are helpful not only to preserve the health but also to get rid of diseases.

The newer diseases and treatment are being invented continuously. The clinical trials and animal experimentation in the field of rasayan in concern with different diseases have shown a very encouraging result such as minimizing radiation hazards, efficacy in tuberculosis, in rheumatoid arthritis. Apart from this it has shown its utility in genome stability, improvement of intelligence, senile memory impairment. This is also useful to improve the social health by which social peace will improve and the crime rate will decrease. In this way the rasayan therapy is useful in different dimensions to mankind.

The further clinical trials and experimentation in broader aspect is needed so it will be definitely create new dimensions in the field of medicine.

CONCLUSION:

- The rasayan therapy is having multiple dimensions.
- In classics rasayan is indicated not only for maintenance of health but also to treat the disease.
- In today's medical practice it has vital role to serve mankind.
- Rasayan therapy is useful to achieve the physical mental and social well being.

REFERENCES

- 1) Bhishagacharya Harishastri Paradakar Vaidya Ashtanghradayam composed by Vagbhata sutrasthana chapter 1 verse 5 p.n. 5 chaukhambha orientalia Varanasi edition 2005
- 2) Prof priyavat Sharma charaka samhita text with English translation volume II chikitsasthana chapter I pratham pada verse 8 p.n. 4 chaukhambha orientalia Varanasi 4th edition 1998.
- 3) Dr. Jyotir Mitra (I.M.J. B.H.U.) sushrut samhita by kaviraj kunjalal bhishagratna M.R.A.S. (Lond.) volume I sutrasthan chapter I verse 10 p.n. 4 Chowkhamba Sanskrit series office Varanasi.
- 4) Pandit parshuram shatri vidyasagar. Sharangdhara samhita by pandit sharangdhara-charya with the commentary adhamallas dipika and kashirams gudharthdipika prathama khanda chapter 4 verse 13 p.n. 37 chaukhambha orientalia Varanasi edition 2002
- 5) Vaidya jadavaji trikamji acharya Charak samhita of agnivesha elaborated by charaka and drudhabala with ayurved dipika commentary by chakrapanidatta chikitsasthana chapter I prathama pada verse 16 p.n. 377 chaukhambha surbharati prakashana Varanasi edition 2005
- 6)Vaidya jadavaji trikamji acharya and Nayanram acharya kavyatirtha sushrut samhita of suhruta with the nibandhasangraha commentary of shri dalhanacharya and nyayachandrika panjika of shri gayadasacharya on nidansthana chikitsathana chapter 27 verse 2 p.n. 498 chaukhambha Sanskrit sansthana Varanasi edition 2009
- 7) Vaidya jadavaji trikamji acharya Charak samhita of agnivesha elaborated by charaka and drudhabala with ayurved dipika commentary by chakrapanidatta chikitsasthana

- chapter I chaturth pada verse 30-35 p.n. 388,389 chaukhambha surbharati prakashana Varanasi edition 2005
- 8) Prof Priyavat Sharma charaka samhita text with English translation volume II chikitsasthana chapter I pratham pada verse 7, 8 p.n. 4 chaukhambha orientalia Varanasi 4th edition 1998.
- 9) Vaidya jadavaji trikamji acharya Charak samhita of agnivesha elaborated by charaka and drudhabala with ayurved dipika commentary by chakrapanidatta chikitsasthana chapter I prathama pada verse 41-57 p.n. 378 chaukhambha surbharati prakashana Varanasi edition 2005
- 10) Vaidya jadavaji trikamji acharya Charak samhita of agnivesha elaborated by charaka and drudhabala with ayurved dipika commentary by chakrapanidatta chikitsasthana chapter I prathama pada verse 58-61 p.n. 379 chaukhambha surbharati prakashana Varanasi edition 2005
- 11) Vaidya jadavaji trikamji acharya Charak samhita of agnivesha elaborated by charaka and drudhabala with ayurved dipika commentary by chakrapanidatta chikitsasthana chapter I prathama pada verse 62-74pn 379 chaukhambha surbharati prakashana Varanasi edition 2005
- 12) Bhishagacharya harishastri paradakara vaidya ashtang hradayam composed by vagbhata uttarsthana chapter 39 verse 33 p.n. 925 chaukhambha orientalia Varanasi edition 2005
- 13) Vaidya jadavaji trikamji acharya Charak samhita of agnivesha elaborated by charaka and drudhabala with ayurved dipika commentary by chakrapanidatta chikitsasthana chapter I prathama pada verse 75 p.n. 381 chaukhambha surbharati prakashana Varanasi edition 2005

- 14) Vaidya jadavaji trikamji acharya Charak samhita of agnivesha elaborated by charaka and drudhabala with ayurved dipika commentary by chakrapanidatta chikitsasthana chapter I dwitiya pada verse 5-6 p.n. 381 chaukhambha surbharati prakashana Varanasi edition 2005
- 15) Vaidya jadavaji trikamji acharya Charak samhita of agnivesha elaborated by charaka and drudhabala with ayurved dipika commentary by chakrapanidatta chikitsasthana chapter I dwitiya pada verse 7 p.n. 381 chaukhambha surbharati prakashana Varanasi edition 2005
- 16) Vaidya jadavaji trikamji acharya Charak samhita of agnivesha elaborated by charaka and drudhabala with ayurved dipika commentary by chakrapanidatta chikitsasthana chapter I dwitiya pada verse 11 p.n. 382 chaukhambha surbharati prakashana Varanasi edition 2005
- 17)Bhishagacharya harishastri paradakara vaidya ashtang hradayam composed by vagbhata uttarsthana chapter 39 verse 24-26 p.n. 925 chaukhambha orientalia Varanasi edition 2005
- 18) Vaidya jadavaji trikamji acharya Charak samhita of agnivesha elaborated by charaka and drudhabala with ayurved dipika commentary by chakrapanidatta chikitsasthana chapter I dwitiya pada verse 17-19 p.n. 382 chaukhambha surbharati prakashana Varanasi edition 2005
- 19)Bhishagacharya Harishastri Paradakar Vaidya Ashtanghradayam composed by Vagbhata uttarsthana chapter 39 verse 81-82 p.n. 929 chaukhambha orientalia Varanasi edition 2005
- 20) Vaidya jadavaji trikamji acharya Charak samhita of agnivesha elaborated by charaka and drudhabala with ayurved dipika com-

- mentary by chakrapanidatta chikitsasthana chapter I tritiya pada verse 24-29 p.n. 385 chaukhambha surbharati prakashana Varanasi edition 2005
- 21) Vaidya jadavaji trikamji acharya Charak samhita of agnivesha elaborated by charaka and drudhabala with ayurved dipika commentary by chakrapanidatta chikitsasthana chapter I tritiya pada verse 32-35 p.n. 385 chaukhambha surbharati prakashana Varanasi edition 2005
- 22) Vaidya jadavaji trikamji acharya Charak samhita of agnivesha elaborated by charaka and drudhabala with ayurved dipika commentary by chakrapanidatta chikitsasthana chapter I tritiya pada verse 36-40 p.n. 385 chaukhambha surbharati prakashana Varanasi edition 2005
- 23) Bhishagacharya Harishastri Paradakar Vaidya Ashtanghradayam composed by Vagbhata uttarsthana chapter 39 verse 98-102 p.n. 930 chaukhambha orientalia Varanasi edition 2005
- 24)) Vaidya jadavaji trikamji acharya Charak samhita of agnivesha elaborated by charaka and drudhabala with ayurved dipika commentary by chakrapanidatta chikitsasthana chapter I tritiya pada verse 62-65 p.n. 386 chaukhambha surbharati prakashana Varanasi edition 2005
- 25) Bhishagacharya Harishastri Paradakar Vaidya Ashtanghradayam composed by Vagbhata uttarsthana chapter 39 verse 133-142 p.n. 933 chaukhambha orientalia Varanasi edition 2005
- 26) Bhishagacharya Harishastri Paradakar Vaidya Ashtanghradayam composed by Vagbhata uttarsthana chapter 39 verse 84-93 p.n. 929 chaukhambha orientalia Varanasi edition 2005

- 27) Vaidya jadavaji trikamji acharya Charak samhita of agnivesha elaborated by charaka and drudhabala with ayurved dipika commentary by chakrapanidatta chikitsasthana chapter I tritiya pada verse 30-31 p.n. 385 chaukhambha surbharati prakashana Varanasi edition 2005
- 28) Vaidya jadavaji trikamji acharya Charak samhita of agnivesha elaborated by charaka and drudhabala with ayurved dipika commentary by chakrapanidatta chikitsasthana chapter I chaturth pada verse 30-35 p.n. 388,389 chaukhambha surbharati prakashana Varanasi edition 2005
- 29) Kumar VP, Kuttan R, Kuttan G. Effect of "rasayanas", a herbal drug preparation on immune responses and its significance in cancer treatment. Indian journal of experimental biology 1999 Jan 37(1) PMID: 10355362
- 30) Kumar VP, Kuttan R, Kuttan G. Radio protective effects of Rasayanas. Indian journal of experimental biology 1996 sept 34(9) PMID: 9014517
- 31) Purvi Vyas, A. B. Thakar, M. S. Baghel, Arvind Sisodia, and Yogesh Deole Efficacy of Rasayana Avaleha as adjuvant to radiotherapy and chemotherapy in reducing adverse effects Ayu. 2010 Oct-Dec; 31(4): 417–423. PMCID: PMC3202271.
- 32) Vyas P, Chandola HM, Ghanchi F, Ranthem S.Clinical evaluation of Rasayana compound as an adjuvant in the management of tuberculosis with anti-Koch's treatment. AYU 2012 Jan; 33(1):38-43 PMID: 23049182.
- 33) Soni A, Patel K, Gupta SN. Clinical evaluation of Vardhamana Pippali Rasayana in the management of Amavata (Rheumatoid Arthritis). AYU 2011 Apr; 32(2):177-80. PMID: 22408298.

- 34) Kulatunga RD, Dave AR, Baghel MS. Clinical efficacy of Guduchyadi Medhya Rasayana on Senile Memory Impairment. AYU 2012 Apr; 33(2):202-8 PMID: 23559791.
- 35) Mohandas Rao KG, Rao MS, Rao GS.Evaluation of amygdaloid neuronal dendritic arborization enhancing effect of Centella asiatica (Linn) fresh leaf extract in adult rats. PMID: 23212568.
- 36) Swain U, Sindhu KK, Boda U, Pothani S, Giridharan NV, Raghunath M, et al. Studies on the molecular correlates of genomic stability in rat brain cells following Amalakirasayana therapy. Mech Ageing Dev. 2012; 133:112–7.
- 37) Kalpana S. Joshi and Ramesh Bhonde Insights from Ayurveda for translational stem cell research. J Ayurveda Integr Med. 2014 Jan-Mar; 5(1): 4–10. PMCID: PMC4012361.
- 38) Mekala NK, Baadhe RR, Rao Parcha S, Prameela Devi Y. Enhanced proliferation and steogenic differentiation of human umbilical cord blood stem cells by L-ascorbic acid, *in vitro*. Curr Stem Cell Res Ther. 2013; 8:156–62. [Pub Med][Cross ref] 39) Kalpana S. Joshi and Ramesh Bhonde Insights from Ayurveda for translational stem cell research. J Ayurveda Integr Med. 2014 Jan-Mar; 5(1): 4–10. PMCID: PMC4012361.
- 40) Li X Zhou J, Li H, Du S, Li Y, Chen D, Study on proliferation effect of extracts of piper longum on mesenchymal stem cells of rat bone marrow and relationship to chemical functional groups. Dhara ID: Do15086. Pub Med ID: 16252724.
- 41) Sumantran VN, Kulkarni A, Chandwaskar R, Harsulkar A, Patwardhan B, Chopra A, et al. Chondroprotective potential of

- fruit extracts of phyllanthus emblica in osteoarthritis. Evid Based Complement Alternat Med. 2008; 5:329–35. [PMC free article] [Pub Med] [Cross ref]
- 42) 8. Dwivedi V, Anandan EM, Mony RS, Muraleedharan TS, Valiathan MS, Mutsuddi M, et al. *In vivo* effects of traditional Ayurvedic formulations in Drosophila melanogaster model relate with therapeutic applications. PLoS One. 2012; 7:e37113. [PMC free article] [Pub Med] [Cross ref]
- 43). Datta HS, Paramesh R. Trends in aging and skin care: Ayurvedic concepts. J Ayurveda Integr Med.2010; 1:110–3. [PMC free article] [Pub Med] [Cross ref]
- 44). Rege NN, Thatte UM, Dahanukar SA. Adaptogenic properties of six rasayana herbs used in Ayurvedic medicine. Phytother Res. 1999; 13:275–91. [Pub Med] [Cross ref]
- 45). Menon A, Krishnan Nair CK. Ayurvedic formulations ameliorate cisplatin-induced nephrotoxicity: Preclinical studies on Brahma Rasayana and Chyavanaprash. J Cancer Res Ther. 2013; 9:230–4. [Pub Med] [Cross ref]
- 46) A.K. Panja, S.choudhury, S.Rath, A.chattopadhyaya The role of Rasayan in infection Journal of Ayurveda volume V-4 oct.-dec 2011.

CORRESPONDING AUTHOR

Dr. R.B. Patil.

M.D. (Panchakarma) Ph.D. (scholar) Lecturer Department of Panchakarma Hon Shri.A.D.A.M.C. Ashta, Maharashtra, India Email: vaidvaravipatil@gmail.com