



(REVIEW ARTICLE)



A critical review of Rasa Jala Nidhi

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GSC Biological and Pharmaceutical Sciences, 2022, 20(02), 145–151

Publication history: Received on 04 July 2022; revised on 09 August 2022; accepted on 11 August 2022

Article DOI: <https://doi.org/10.30574/gscbps.2022.20.2.0319>

Abstract

Rasa Jala Nidhi is an important treatise of Rasa Shastra which is also pronounced as "Ocean of Indian Chemistry & Alchemy". It is a compilation work of Sanskrit verses transmitted from generation to generation either through oral tradition or from the citations occurring in ancient texts of alchemical chemistry. It is considered as one of the elaborated works written on Rasa Shastra. The present work is an illustrative and critical review on the text Rasa Jala Nidhi to highlight the unique and significant contribution in the field of Rasa Shastra.

Keywords: Rasa Jala Nidhi; Parada; Iatrochemistry; Rasa Shastra; Indian Alchemy

1. Introduction

Rasa Jala Nidhi is the most systematic and comprehensive composite on the science of Hindu Chemistry or Rasa-Vidya. It is also pronounced as "Ocean of Indian Chemistry & Alchemy", which is one of the elaborated works done in Rasa Shastra. It is a sort of compilation of Sanskrit verses transmitted from generation to generation either through oral tradition or from the citations appearing in ancient texts of alchemical chemistry. Rasa Jala Nidhi was published by Avani Prakashan, Ahmedabad, India in the year 1984. The author has admitted that he was intending to compile the present text in 10 volumes but was unable to do; hence he compiled the book in five volumes only. He has collected all the relevant texts from the existing texts of Hindu chemistry or Rasa Shastra. He also mentioned about his ascetic preceptor Yogi, who helped him to methodologically arrangement of the matter found in existing books. He also learnt about various mercurial preparations from the Yogi, which is described at several places of the present text. The work has been done as analogy of Rasarnava, imparting divinity to the text.

2. Material and methods

Rasa Jala Nidhi is a compilation of Rasa shastra books that have already been authored in Sanskrit with English translation. The text was hand searched for the critical analysis of the text for the current study. The objective of this exercise is to review Rasa Jala Nidhi, including its structure, peculiarities, and contributions to the field of rasa shastra.

2.1. About author

Kaviraj Bhudev Mukherjee in the year 5026 of the Kaliyuga which is 1984 according to English Calendar, at the great city of Kalikakshetra (Calcutta or Kolkata) wrote the book. The author has given a brief introduction about him in treatise itself. He was descendant of the great sage Bharadwaja, belongs to Brahmin family. His was born to father Harilala Deba and mother Nistarini Devi. He was descendant to great poet Sreeharsha, who authored Naisadha Charitam (a well-known Sanskrit poem), from whom the author has received the Family name Mukhopadhaya (great preceptor)

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or Mookerji. He was resident of village named Hastisala, situated at the banks of river Maurakshi, which is the ancient region of Gangarastra in Bengal.

2.2. Structure of the book

The book consists of total 5 volumes.

- Volume 1 contains 08 chapters
- Volume 2 contains 04 chapters
- Volume 3 contains 11 chapters
- Volume 4 contains 06 chapters
- Volume 5 contains 11 chapters

3. Results and discussion

3.1. Volume 1

The first volume starts with the Mangalacharanam where the author has given brief details about himself and the background of the book. According to author, he has compiled the book based on the treatises which are extant and very rare. The data from the earlier books have been compiled very carefully. Volume 1 is divided into eight chapters.

3.1.1. Chapter 1 - Requisites for Metallurgical Operations (*Rasa-sadhanasya Pryojanani*)

The chapter details about Qualifications of Preceptor or Acharya and Disciple or Shishya, Construction of Rasa-shala, Rasa-lingam and conception of two deities. It also includes the details of Rasa-shala, list of all the equipments to be used in metallurgical procedures which needs to be kept in Rasashala.

3.1.2. Chapter 2 - Initiation of Disciple (*Shishyopnayanam*)

This chapter includes all the rituals and riots to be performed by the disciple before the initiation of mercurial procedures. Details about Kalini, Rasamandapam are available. Worshipping by means of Aghora, Rasankusha hymns, Bhairav has been described. The author dictates that the knowledge of metallurgy has to be kept secret to those who are not disciples; otherwise it may lose its strength.

3.1.3. Chapter 3 - Parada (*Rasaprasanga*)

The chapter starts with the description of Qualities of Parada (Gunavarnanam of Rasa), where the synonyms of Rasa, Rasapanchaka of Parada, its properties, its three courses (Gati) and its comparison to divine God, Pachvidha Rasapooja and its fruitfulness have been described followed by its types and etymological significance of different names of Parada.

3.1.4. Chapter 4 - Parada Prasanga

The chapter explains about the natural blemishes of Parada, blemishes due to environment, appearance of purified Mercury, Ashtadasha Samskara of Parada viz. Shodhana, Swedana, Mardana, Uthopana, Patana, Rodhana, Niyamana, Deepana, Anuvasana, Grasana, Murchana, Sancharana, Garbhadruti, Jarana, Marana, Bhasmikarana, Bhedana. The author has elaborated all the samskara very efficiently. The different procedures for preparation of Rasa-sindura along with the different variety of Rasa-dravyas such as Karpura rasa, Sarvanga-sundar rasa, Krishna rasa, Swarna Sindura, Makardhwaj etc are also described in the chapter. In the same context of Rasa-murchchana, Rasa -Parpati has been described. Different procedures of Rasa-bandhana, Rasa-Jarana, Bhasmikarana of Parada has been detailed in the text. Parada-sevana Vidhi has been mentioned with disease- specific-anupana. Dietary regulations to be observed at time of taking Parada, Avaidha- Rasa-sevana-janya Vikar and their management has been specifically mentioned by the author.

3.1.5. Chapter 5 - Parada Prasanga

This chapter is in the continuity of the Ashtadasha samskara of Parada, with description of Ranjana, Sarana and Vedhana vidhi. Various methods for transformation of lower metals into gold, silver or higher metals has been compiled and described by the author. This chapter shows the specialty of the book.

3.1.6. Chapter 6 - Yantra

There is description of 44 Yantra, 15 Musha and 10 Puta in the chapter. Jala Yantra, Tejo Yantra, Gouri Yantra, Chakra Yantra, Vaka Yantra, Varuni Yantra and its different variety has been very specifically described here.

3.1.7. Chapter 7- Paribhasa

The chapter explains in detail regarding the definition of Taila varga, Amla Varga, Visha varga, Vida gana, Kajjali, Ras pishti etc. The details are also available about Parimana (Weights & measures) and 25 types of Rasa-bandha.

3.1.8. Chapter 8 - Atirikta Vedhana Prakriya

Different procedures used for making gold and silver and also Tamra-Shwetikarana (bleaching of copper) procedure have been explained in the chapter.

3.2. Volume 2

The second volume deals with detailed description about another categories of Rasa Dravyas i.e., 'Uparasa' such as Abhraka (Mica), Makshika Gandhaka (Sulphur), Hartala, Anjana, 'Sadharana rasa' i.e., Kampillaka, Shankha and Metals such as Gold, Silver, Copper etc., their different operations, purifications, uses and applications have been detailed. The author has classified the Rasa Dravyas under the category of Uparasa and subcategorized it as follows:

- Group 1: Vajra Abhraka, Makshika, Vimala, Shilajatu, Tuthaka, Sasyaka, Chapala and Rasaka.
- Group 2: Gandhaka, Gairika, Kasisa, Kankshi, Hartala, Manahshila, Anjana and Kankustha.
- Group 3: Kampillaka, Gauripashana, Navasara, Kapardaka, Agnijara, Girisindura, Hingula, Mriddarashringaka and Bhunaga.

3.2.1. Chapter 1

In this chapter the author described about Abhraka, its types, processes for its purification, incineration, Amritikarana and Satvapattana etc. Abhraka, if incinerated for 1000 times, it will become 'Beejam' which increases semen, vitality, complexion and strength of body. Description of "Gaganmarak gana", uses of Abhraka bhasma, Abhraka Kalpa, Pathya-apathya etc. The author has detailed about different methods for "Abhraka-vedha". The author later described about Makshika, its types, Shodhan, Marana etc. There is also description of 6 types of Shilajatu viz. Swarna Shilajatu, Raupya Shilajatu, Tamra Shilajatu, Lauha Shilajatu, Vanga Shilajatu and Sisaka Shilajatu. The description of Sora-Shilajatu is specifically mentioned. The author told about Tutha, Rasaka and their types along with different procedures and operations.

3.2.2. Chapter 2

In chapter 4 of Rasa Jala Nidhi, details about Gandhaka, its Shodhana & Marana, Gandhaka- sevana vidhi, Rasayana Gandhaka, Gandhaka Taila, Gandhaka-gandhadurikarana method, Gandhaka-vedhana kriya has been detailed. Description of Gairika, Kasis, Kankshi, Hartala, Hartala- druti, Hartala-vedhana kriya, Manhashila, Anjana and its types, Kankustha has been elaborated.

3.2.3. Chapter 3

This chapter deals with Sadharana Uparasa viz. Kampillaka, Gauripashana, Navasara, Kapardika, Shankha, Vahnijara, Giri-sindura, Hingula, Mridarshringa and Bhunaga, their types, purification, incineration, satvaprana, satvshodhan etc different procedures. In context of Hartala, the author has described Hingula paka (Shatarkadarad).

3.2.4. Chapter 4

In this chapter, the author has differentiated metal in two categories ie Dhatu (7 in number; Gold, Silver, Copper, Iron, Zinc, Tin and Lead) and Mishra-lauha (3 in number; Pittala, Kamsya, Varta). Different types, properties, method of purification, incineration, Asuddha-bhasma-janyadosha, their management etc. of Swarna, Raupya and Tamra has been described.

3.3. Volume 3

The author, himself has mentioned that the volume has dealt with the study of a pharmacopoeia of drugs prepared mainly from minerals. This volume consists of 11 chapters, having details of Lauha, Yasada, Pittala, Ratna, Ksharas, Lavanas, Poisons, Semi-poisons, Extraction of oil from seeds, Alcoholic liquors, Paribhasa.

3.3.1. Chapter 1: Lauha

It has description of Properties of Lauha, Lauha-doshas and its effect, types of Lauha. There are different kinds of Lauha i.e. Samanaya lauha, Krauncha lauha, Kalinga, Bhadra lauha, Vajra lauha, Pandi lauha, Niraba lauha and Kanta lauha. Besides these varieties, the author has given description of other varieties such as Munda, Tikshna and Kanta lauha. The sub-varieties of Munda lauha are Mridu, Kuntha and Karara, of Tikshna lauha are Khara, Sara, Hrinnal, Tarapatta, Vajraka and Kala, of Kanta lauha are Bhramaka, Chumbaka, Karshaka, Dravaka and Romakanta respectively. The author has also described about different procedures of shodhan, marana for Lauha. Sthalipaka, Bhanupaka and Putapaka procedure of lauha has been elaborately discussed along with details of different gana such as Triphaladi, Erandadi, Kiraatadi, Shringveradi etc. which can be used for the putapaka process of Lauha. Specific drugs to be used for processing of Lauha bhasma according to disease have been mentioned. The author has described a specific method for consumption of Iron bhasma processed with Triphala, Milk and Clarified butter. The author has also described about the doses of Rasa-dravyas ie

- Parada, Swarna Bhasma - 1 gunja
- Raupya Bhasma - 3 gunja
- Tamra Bhasma - 2 gunja
- Lauha-Abhraka-Naga-Vanga-Yashada Bhasma -6 gunja
- Kamsya-Pittala Bhasma- 2 gunja
- Vajra Bhasma - 2 yava

Later, in the chapter descriptions about different anupanas for lauha bhasma according to diseases, along with dietary indications and prohibitions have been mentioned. Lauha Dravna has also been described in this chapter. There is description of Mandur (Lauha Kitta), its varieties, shodhan & marana processes, mandura dravana.

3.3.2. Chapter 2: Yashada

In this chapter, the author has given detailed description of Yashada- its properties, shodhana & marana process, doses, Anupana, ill-effects of Apakwa-bhasma and its management. Later, the author has also described about Vanga, its varieties, shodhana, marana etc. Vanga-kalpa, disease- specific anupana for Vanga bhasma, ill effects of improper bhasma sevana and its management has also been given, Description of Naga, its varieties, shodhan, amartana etc has been given in the same chapter Nagamrita (Nectarization of lead) has been specifically mentioned.

3.3.3. Chapter 3: Pittala

Details of Pittala, its characteristics, shodhana, marana and uses have been detailed in this chapter. Similarly, Details of Kamsya, Kams ya-pittala vedha vidhi has been also described. Description of Varta-lauha, Triloha (20 parts of gold, 16 parts of silver and 10 parts of copper), their shodhan and marana has been given. In this chapter, brief description of Bhunaga-satva, its Satvapattan method and its uses has been given. In the end of the chapter, the author has mentioned about "Rasa - pradhanya" i.e., the superiority of metallic drugs.

3.3.4. Chapter 4: Ratna

The author has mentioned 16 Ratna viz. Vajra, Marakata, Manikyam, Mukta, Nilamani, Gomedam, Vaiduryam, Vaikrant, phatikam, Chandrakantam, Suryakantam, Pravalam, Karketam, Pushparaga, Rajavarta and Bismakam. The author also listed out 7 upratnas i.e. Palanka, Rudhira, Puttika, Turkshajam, Pilu, Upalam and Saugandhikam. The author has described in details about them, their shodha-marana, uses etc. General purification method for Ratna, their incinerations processes, their, properties, has also been given.

3.3.5. Chapter 5: Kshara

This chapter starts with the Nirukti of Kshara "ksharati yo malam shighram". Then, the author mentioned Kshara-trayam, Kshara-chatustyama, Kshara-panchakam etc. Properties of Kshara, general procedure for kshara-nirmana has been given. Details about Yavakshara, Ushar kshara, Swarjika kshara, artificial preparation of Swarjika-kshara, Tankan

has been mentioned. Two types of kshara- Pratisarniya and Taralakshara with their uses has also been given. The author has followed the general method for kshara-nirman as mentioned in Shusruta samhita.

3.3.6. Chapter 6: Lavana

In this chapter the author has differentiated lavana in 6 types: Samudra lavana, Saindhaava lavana, Vida, Sauvarchala, Romaka and Chulika lavana. The author has mentioned about general properties of Lavana, its adverse effect if taken in excess, then give details of each type of lavana and their properties.

3.3.7. Chapter 7: Visha

In chapter 7, Visha has been classified in three categories i.e Sthavar (organic), Jangam (inorganic) and Gara (artificial). There is description of 18 different kinds of inorganic visha viz. Saktuka, Mustaka, Shringi, Baluka, Sarshapa, Vatsnabha, Kurma, Sweta-shringi, Kalakuta, Mesha-shringi, Halahala, Dardura, Karkata, Markata, Granthi, Haridra, Rakta-shringa and Keshara. The author has also mentioned that the eight Kanda-Visha (tuber poisons) which can be used for medicinal purpose rest should be avoided. The author has also mentioned about classification of these eight poisons according to different caste (Brahmana, Kshatriya, Vaishya and Shudra) depending on the colours they impart. There is also description of 10 demerits of poison, features of poison-ingestion and its treatment. Properties of Prashasta Visha, method of procuring tuber poisons, purification methods and their Marana procedure has also been given. Details of person who is suitable for Visha-consumption along with the directions to use, Doses, Dietary considerations-restrictions and detailed uses of inorganic poison has been described. The author has also described about Jangam Visha (Organic Poison) where the procedure of Shodhana of Sarpa-visha, symptoms arising due to it and then its management has been explained.

3.3.8. Chapter 8: Upavisha

There are 13 types of Upavisha explained in this chapter viz. Snuhi, Arka, Langali, Gunja, Karavira, Vishamusti, Dhatura, Jayapala, Bhallataka, Nirvisha, Ativisha, Ahiphena and Jaya. Details of each have been given along with their respective purification methods. Method for extraction of oil form Bhallataka-fruits has also been mentioned. There is description of specific antidotes for each semi-poison. At the end of the chapter, the author has also described about the Shodhana process of few dravyas such as seeds of Vriddha-daru, Nimba, Aragwadha, Katuki, Karanja and Bilwa; Guggulu and Jalauka.

3.3.9. Chapter 9: Taila patana

This chapter deals with the oil extraction techniques from seeds of any kind either known or unknown. The author has mentioned bhavana of different plants/plant juices/decoctions. The author has also provided description of Patala Yantra, Kanduka Yantra. Methods of oil- extraction from seeds of Ankola, Dhatura, Bakuchi, Devadali, Kuchila, Jayapala, Aragwadha, Katurtumbi, Gunja, Karanja, Jyotismati, Putrajivha, Shami has also been described.

3.3.10. Chapter 10: Sandhana Varga

This is very unique contribution by the author; this topic is not usually covered in any other Rasa Shastra text. There is classification of three different types of Sandhana Kalpana viz. Madira (Alcoholic). Madirahina (non-alcoholic) and Amadira (non-alcoholic fermented drinks). The alcoholic drinks are further categorized into 8 types: Gauri, Madhvi, Paisti, Kadambari, Varuni, Madhuki, Maireyi and Mardi. In the similar context, the author has mentioned distillation apparatus such as Tejo yantra, Nadika yantra, Varuni yantra and Baka yantra. Various types of Amadira or non-alcoholic fermented drinks described are Asava, Arishta, Sidhu, Sukta, Guru- sukta, Chukra, Tushambu, Dhanyaka, Kanji, Sauvira, Aranala and Shindaki.

3.3.11. Chapter 11: Paribhasha

The last chapter of the text deals with different terminologies of Rasa-shastra. Definition of Sulva-naga, Vara-lauha, Ghosha-akrishta tamra, Vara-naga, Patangi raga, Chullaka-raga, Avapa, Abhisheka, Nirvapa, Suddhavarta, Beejavarta Swanga-shita, Bahir-shita etc. At the end of the chapter the author has enlisted 37 Rasa-siddhas.

3.4. Volume 4

This part of the text describes about the general deeds to be followed during administration of mercurial preparations. There is detailed description of various formulations in the management of different diseases such as Jwara, Jwaratisara, Agni-vaishmya, Arsha and Udara-roga along with Pathya-apathya for every disease.

3.4.1. Chapter 1: Rasabheshajasevanavidhi

This Chapter deals general directions to be followed at the time of taking of mercurial preparations. Brief description about the diet to be followed, diet and deeds to be avoided has been given. Details of Virudha-bhojhan, Usha-pana vidhi, Atap sevan Niyam, Restrictions regarding dress, Vayu-sevan niyam, restrictions regarding Diwaswapna, Abhyanga-vidhi, restrictions regarding sleep, Bhojana-niyam, rules for betel-chewing, Vyayama-vidhi, Actions prohibited at dusk and dawn, Shayan-vidhi. The advantages of Rasa-chikitsa, Anupana for Rasa aushadhi. Dosage of Rasa beshaja has also been elaborately mentioned. The author has mentioned that if there is no description of dose, vati should be prepared of one ratti weight each. In the context of directions for preparing a medicine with more than one ingredients, the term mercury in formulation denotes incinerated mercury, and but if there is mention of both mercury and sulphur, the term here denotes only purified mercury. Specific direction related to rasa-aushadhi sevan has been mentioned. It is said that four vatis of rasa-aushadhi should be taken once in 2-3 hours till the recovery of the patient which can further be reduced 2 vatis/day and later reduced to 1 vati/day until the complete cure. The common method of anupan-sevan is taking the rasa-aushadhi with madhu which is triturated with specified bhavana dravyas for the duration of 12 minutes and then ingested. There are special directions for taking medicines mixed with pitta (bile) of animals. Beshaja-sevana kaal along with contraindications and indications for administration of medicines has been also given.

3.4.2. Chapter 2: Jwaradhikara

This chapter has description of fever, its symptoms, types, Navajwara, types of Navajwara, Agantuja jwara, Vishama-jwara etc and their symptoms has been elaborately discussed. General line of treatment of Jwara, diet and deeds has been mentioned. There is description of various rasa-aushadhis advised in Jwara such as Shivadurga rasa, Ishansunder rasa, Meghanada rasa, Jwara- gajahari rasa, Parvati-shankar rasa, Achinta-shakti rasa, Jwara- dhumketu rasa, Shri-rama rasa, Prachandeshwara rasa, Mrityu- vighatana rasa, Mrito-othapana rasa, Pratap- ravana rasa, Himankusha shekhara rasa etc. Around 169 formulations has been mentioned in the context of management of Jwara

3.4.3. Chapter 3: Jwaratisaradhikara

This chapter dealt with Jwaratisara, its symptoms and management. In the chapter, 23 formulations have been mentioned along with description of 53 formulations for grahani. Out of 9 parpatikalpanas, description of Maheshaparpati as "sarvavyadhihara" is also given.

3.4.4. Chapter 4: Agnimandyadhikara

In this chapter, the author has described 48 formulations for the management of Agnimadya.

3.4.5. Chapter 5: Arshoadhikara

There is description of 22 formulations for the treatment of Arsha in this chapter.

3.4.6. Chapter 6: Udaradhikara

In this Chapter, 24 formulations have been found mentioned for the treatment of Udararoga.

3.5. Volume 5

In the introductory part of 5th volume, the author has mentioned few Ayurvedic medicines as marvellous mean to treat few diseases such as "Mritasanjivana Suchikabharan rasa", "Suchikabharana rasa", "Suchikakshepana rasa" in cholera ad fever. It has been advised the physicians to use "Rasatalaka" and "Tripurari rasa" in fever, and if these medicines failed to give results, use of "Kasturibhairava rasa", "Saubhagya rasa" can be done.

This volume contains treatment modalities for various disease conditions such as Rakta pitta, Kshaya roga, Kasa, Hikka-swasa, Swara bheda, Hrida roga, Uro-graha, Amlapitta, Pittaroga, Shoola roga, Gulma, Krimiroga, Trishna, Medoroga, Karshya roga, Daharoga, Madatyaya, Pandu roga, Halimaka, Kumbha Kamla, Arochaka, Chardi, Murcha roga, Sanyasa, Nidra-Tandra, Apasmar, Unmada, Amavata. The text has elaborately mentioned the Pathya-apathya for every disease. The author has given various herbal remedies for the treatment of disease followed by description of numerous Rasa-yoga for each disease. In this volume different diseases and yogas have been described.

For Raktapitta- 14 yogas, Rajayakshma – 19 yogas, kasa -28 Swarabhedha – 2 yogas, Hrudroga – 9 yogas, Amlapitta – 10 yogas, Shoola – 43 yogas (8 Mandoorayogas), Gulma – 19 yogas, Krimi – 16 yogas, Pandu – 41 yogas, Arochaka – 2 yogas, Chardi – 3 yogas, Trushna – 3 yogas, Medoroga – 7 yogas, Karshya, Daha, MadatyayaJanitaVikara, Murcha – 2 yogas each, Apasmara – 6 yogas, Unmada – 9 yogas, Amavata – 11 yogas.

4. Conclusion

The author has given detailed history of 27 Rasa- siddhas as found mentioned in Rasaratna Samuchchya. The text mentioned three types of courses or Gati of Parada and their comparison with divine God is mentioned. Specific and unique description of few parpati kalpanas such as Mahesha Parpati, Brahma Parpati, Nakuli Parpati Rasa, and Unmatta Parpati Rasa has been explained in the text. Detailed description of Tamra- Shwetikarana (or bleaching of copper) has been given. In the treatise, all the Rasa dravyas are classified in different groups under the heading of Uparasa. The author has also explained about the importance of puta in context with Abhraka- Marana, where the author has said that if Abhraka is incinerated with puta for 18 times, it becomes pacifier of Vayu, 36 times it becomes pacifier of Pitta, and 54 times as pacifier of Kapha. Author has also mentioned 6 varieties of Shilajatu. The author has also specified doses of bhasma of Rasa- dravyas viz., dose for Parada and Swarna bhasma is 1 gunja. Along with that the description of unique formulation i.e., Siddhisar has been given as antidote towards the untoward effects of incinerated metals. Around 34 different procedures for preparation of Lauha Bhasma have been mentioned in the text. A vivid description of different oil extraction techniques has been elaborately dealt in the text. The text also detailed about Sandhana Kalpana, in which three kalpana is categorized into 3 different classes i.e., Madira (Alcoholic), Madirahina (non-alcoholic) and Amadira (non-alcoholic fermented drinks). The author has also written brief history of Indian chemistry and medicine including details of Mahabharata, different dynasties starting from Brihadrathaha Dynasty, Pradyota Dynasty, Maurya Dynasty, Gupta Dynasty etc. In the nutshell, where at one end the author has done good compilation of information already available in different texts, at the same time, some new formulations, detailed pathya- apathya has been described by the author, which makes it unique and one of the most important treatises of Rasa Shastra.

Compliance with ethical standards

Acknowledgments

The Article was written at the Rashtriya Ayurveda Vidyapeeth under the guidance of Dr. (Prof.) Anupam Srivastava.

Dr. Anu contributed to literature review and draft preparation. Dr. Ananya, Dr. Deepak and Dr. Vishakha contributed to literature review, conceptualization of the topics and analysis. Dr. Anupam contributed to analysis and finalization of the draft.

Disclosure of conflict of interest

The Authors declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

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