

REVIEW ON RASATARANGINI – AN AUTHORITATIVE TREATISE IN INDIAN ALCHEMY

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Abstract

Rasashastra (Indian Alchemy) forms the basis of Ayurvedic pharmaceuticals. Ample literature is available in form of Sanskrit texts containing the matter pertaining to preparation of drugs from metal and mineral origin. Amongst the most recent works on Rasashastra, Rasatarangini holds an important place amongst academicians, researchers and students of Rasashastra. Present paper will highlight the framework of Rasatarangini, providing information about the author, text, peculiarities and innovations. It will also throw a light towards contribution of Rasatarangini in field of Ayurveda.

Key words: Ayurveda; Rasashastra; Rasatarangini.

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INTRODUCTION

Rasashastra is a branch of ancient Indian medicine which deals with preparation of formulations from metal and mineral origins (Rasaushadhies). Preparation of Rasaushadhies involves various complex procedures like Shodhana (Purification), Bhavana (Levigation), Marana (Incineration) etc. These processes are defined to great extents in various classical texts of Rasashastra.

Rasatarangini is an authoritative text on Rasashastra and contains all the details of various procedures involved in drug preparation. It is considered to be the last classical text pertaining to Rasashastra written in modern period.

About the author, period and chapters

Author and place

Rasatarangini was written by Pranacharya Sadananda Sharma. Colophon given at the end of last chapter clearly indicates the author of this text as Sadananda Sharma. He belongs to an ethnic Garhwali Brahmin family of originally Ghildiyal family name. His father is Pandit Jeevananda and mother Saraswati Devi. He also states that he is a resident of Kholi Gram located near Srinagar which is under Garhwal Mandala. Presently it is a small village in Srinagar which is a municipal board in Pauri Garhwal district in the Indian state of Uttarakhand. At present the village has Shri Ashtavakra temple, Sri Nagarja and Sri, Bhiravnath temples. This can probably explain the relation of author writing a text on Rasashastra.

Tutor

In writing this book, he was assisted by his teacher, Kaviraj Narendra Nath Mitra. He learned Rashastra for three years under his tutelage.

Period

The author states that written work of Rasatarangini was completed by him on Chaitra Trayodashi, Vikram Samvat 1980. In terms of Gregorian calendar, it corresponds to 3rd March 1924, on the day of Maha Shivratri.

Book and chapters

Sadananda Sharma has dedicated Rasatarangini to his teacher, Kaviraj Narendra Nath Mitra. At certain places, he also quotes the expertise of his tutor over Rasashastra and acknowledges his reverence at certain places in the text. The text is written in poetry form throughout. Foreword of the text is written by Sadananda Sharma himself, whereas prologue by Hari Dutt Shastri, the Sanskrit commentator of the text. Hindi preface is written by Dharmananda Shastri. The book is complete in it and contains 24 chapters termed as 'Taranga' encompassing 3651 verses.

Editor, Publisher and commentaries

The book is edited by Shri Kashinath Shastri and published by Motilal Banarsidas Publishers, printed by Shri Jainendra Press, New Delhi and 11th edition was published in 1976 followed by reprint edition in 1982. This particular edition has been taken into consideration for writing this article.

Prasadini Sanskrit commentary on Rasatarangini is written by Shri hari Dutt Shastri and Hindi commentary Rasa Vigyan by Pandit Dharmananda Shastri. No other commentaries are available on this text.

Contents of text

Sadananda Sharma has named the chapters of the text as Taranga. The matter of text resembles the turbulent flow and waves of a river which possesses the capacity and knowledge to guide the ailing through diseases. Total 24 Taranga (chapters)

encompasses Rasatarangini. Complete text is written in prosody form. The text is sound as far as its grammatical and literary aspects are concerned, which reveals the author's great spirit in literary display. A list of contents of chapters of Rasatarangini is placed below for detailed information.

Rasashala Vigyaniya Prathama Taranga

1st chapter commences with salutation to Goddess Parvati through various synonyms. He then reveres his parents and tutor. It follows the description of Rasashala (Pharmacy), divisions of pharmacy, instruments and equipments of pharmacy, characteristic features of pharmacy workers, subordinates, Rasacharya (Chief Pharmacist) and his disciples. This chapter also contains names of 25 Rasa Siddhas which are to be revered.

Paribhasha Vigyaniya Dwitiya Taranga

2nd chapter contains explanation about various definitions used in Rasashastra like Shodhana, Marana, Kajjali (mercuric sulphide), Parpati etc. It also contains Mana Paribhasha (measurements), definition of Dhanwantari Bhaga and Vishwasaghataka Vaidya.

Mushadi Vigyaniya Tritiya Taranga

3rd chapter deals with process involved with preparation and utility of Musha (crucible). Description regarding 8 types of Musha excluding Samanya Musha, 2 Kosthika and 10 types of Puta (traditional furnace) is also found in this chapter.

Yantra Vigyaniya Chaturtha Taranga

4th chapter details about various Yantra (equipments and instruments) required during processing of various formulations. 19 Yantras have been described in this chapter. It gives details pertaining measurements and utility of various Khalva Yantras (Mortar and Pestle).

Paradasya Astasamskara Vigyaniya Panchama Taranga

5th chapter is important as it elaborates various processes involving Parada (mercury). It starts with description of Parada pertaining to its properties, appearance, blemishes, processes of purification, extraction of Parada from Hingula, 8 types of processing of Parada, Jarana, Shadguna Bali Jarana etc.

Murchhana Vigyaniya Shastha Taranga

Chapter 6 deals with process involving preparation of formulations containing Parada and Gandhaka (Sulfur). Method of preparation and posology of Mugdha Rasa, Rasa Pushpa, Rasa Karpura, Siktha Taila, Rasapushpadya Malhara, Kajjali, Parpati, Rasa Sindura (prepared in varying ratios of Parada and Gandhaka), Makaradhwaaja and Sarvanga Sundara Rasa has been elaborated.

Parada Marana Vigyaniya Saptama Taranga

7th chapter deals with various processes related to incineration of Parada. It also details about posology of Parada Bhasma. Concept of Kshetrikarana, Pathya Pathya in Rasa Sevana and measures to combat ill effects of Parada Bhasma are also highlighted in this chapter.

Gandhaka Vigyaniya Ashtamo Taranga

8th chapter contains description regarding types, appearance, Shodhana, properties and dose of Gandhaka. Preparation of Gandhaka Malhara, Gandhaka Taila and Gandhaka Drava (Sulphuric acid) has been given in this chapter.

Hingula Vigyaniya Vavama Taranga

9th chapter deals with appearance and types of Hingula (HgS). It also describes the method for artificial Hingula preparation. Shodhana process for Hingula, method for preparation of

Hinguladya Malhara, Daradamrita, Hinguliya Manikya Rasa etc has been described in this chapter.

Abhraka Vigyaniya Dashama Taranga

10th chapter deals with synonyms, types, acceptable nature and processes of Shodhana, Marana, Amritikarna, Sattvapata, dose and indications of Abhraka (Mica).

Talakadi Vigyaniya Ekadasha Taranga

11th chapter deals with synonyms, types, acceptable nature and processes of Shodhana, Marana, dose and indications of Haratala (Arsenic trisulfide). It also elaborates the process of artificial Haratala preparation. Similar description of Manahshila (Arsenic disulfide), Gauripashana (arsenic trioxide), Sphatika (Alum), Khatika (calcium carbonate), Churna (lime), Dugdha Pashana and Godanti (calcium sulfate) is also found in this chapter. Preparation of Talakodaya Malhara, Rasamanikya, Haratala Sattvapata, Churnodaka (Lime water) etc. are also included in this chapter.

Shankhadi Vigyaniya Dwadasha Taranga

12th chapter deals with synonyms, types, acceptable nature, and process of Shodhana, Marana, dose and indications of Shankha (conch shell), Shukti, Shambuka, Varatika, Mrigashringa and Samudraphena (No Marana). Preparation of Shankha Drava, Trirekha Varti, Shankha Varti etc. are also given in this chapter.

Ksharatrik Vigyaniya Trayodasha Taranga

Chapter 13 contains details about method of preparation, dosage and indications of Yavakshara, Sarjjikshara and Tankana. Nimbukamliya Yavaja (Sodium citrate), Nimbukamliya Sarjika (Potassium citrate), Tankanamla (Boric acid) are also described in this chapter.

Ksharavisheshadi Vigyaniya Chaturdasha Taranga

Chapter 14 deals with description pertaining to Shodhana, properties and posology of different types of Kshara (alkalies) viz. Navasagara, Suryakshara, method of preparation, dose and indication of other alkali like Apamarga Kshara, Arka Kshara, Tila Kshara, Snuhi Kshara, Palasha Kshara and Chinchu Kshara. Properties of Saindhava, Samudra, Bid, Saurvachala, Romaka Lavana and Lavana Kalpana including Narikela Lavana and Arka Lavana are mentioned in this chapter. Preparatory method, dose and indication of Soraka Drava (Nitric acid) and Lavana Drava (Hydrochloric acid) are also listed in this chapter.

Suvarna Vigyaniya Panchadasha Taranga

Chapter 15 begins with definition of Dhātu, cataloging 7 Dhātus followed by their Samanya Shodhana and Marana procedures. In later part of this chapter, synonyms, acceptable appearance, Shodhana, Marana, properties, dosage and indications of Swarna (gold) has been given. It also includes preparation of Swarna Lavana (gold salt).

Rajata Vigyaniya Shodasha Taranga

Chapter 16 contains synonyms, acceptable appearance, Shodhana, Marana, properties, dosage and indications of Rajata (silver). It also includes preparation, properties and usage of Sorakamliya Rajata (Silver Nitrate) and Navasagara Bhaspa Drava (Liquor Ammonia).

Tamra Vigyaniya Saptadasha Taranga

Chapter 17 contains synonyms, acceptable appearance, types, Shodhana, Marana, Amritikarana, properties, dosage and indications of Tamra (copper) followed by description of few formulations containing Tamra. Bhunaga Satva Patana and Mayura Piccha Sattva Patana are also described.

Vanga Vigyaniya Ashtadasha Taranga

18th chapter contains synonyms, types, acceptable appearance, Shodhana, Marana, properties, dosage and indications of Vanga (tin). It also includes preparation, properties and usage of Swarna Vanga.

Sisakadi Vigyaniya Ekonvimsha Taranga

19th chapter deals with synonyms, acceptable appearance, Shodhana, Marana, properties, dosage and indications of Naga (lead). It also includes preparation, properties and usage of Arnaliya Sisaka (Lead acetate) and Kanjikamla (Acetic acid). This chapter also contains synonyms, acceptable appearance, Shodhana, Marana, properties, dosage and indications of Yashada. Preparation of Yashadmrita Malhara, and usage of Gandhakamliya Yashada (Zinc Sulphate) is also given.

Lauhadi Vigyaniya Vimsha Taranga

20th chapter deals with synonyms, types, acceptable appearance, Shodhana, Marana, properties, dosage and indications of Lauha (iron) and Mandura (iron oxide).

Updhatvadi Vigyaniya Ekavimsha Taranga

21st chapter deals with synonyms, acceptable appearance, Shodhana, Marana, Sattva Patana, properties, dosage and indications of Swarna Makshika (copper pyrite) and Rajata Makshika. Detailed description about Tutha (copper sulfate), its properties, Sattva Patana, utility, artificial preparation has been also dealt with in this chapter. Further description of Sindoor, Mriddarasringa, Kharpara, Kanta Pashana (load stone) and Kasisa (ferrous sulfate) are found in this chapter.

Mishralohadi Vigyaniya Dwavimsha Taranga

Chapter 22 deals with medicinal properties and processes pertaining to alloys viz. Pittala

(brass) and Kamsya (bronze) followed by description of Anjana, Shilajatu (black bitumen) and Gairika.

Ratna Vigyaniya Trayovimsha Taranga

23rd chapter is concerned with medicinal properties and techniques involved in Shodhana and Marana of 9 Ratnas (gem stones) viz. Heeraka, Manikyā, Mukta, Pushparaga, Neelam, Tarkshya, Vaidurya, Gomeda and Pravala. 6 Kshudra Ratna has also been mentioned viz. Vaikranta, Suryakanta, Chandrakanta, Rajavarta, Perojaka and Sphatika.

Vishopavishadi Vigyaniya Chaturvimsha Taranga

24th chapter deals with Shodhana, medicinal properties and posology of various poisons of herbal origin along with Snake poison. Herbal poisons mentioned are Vatsanabha (Aconite), Kuchala (Nux vomica), Ahiphena (*Papaver somniferum*), Jayapala (*Croton tiglium*), Dhatura (*Datura metel*), Bhanga (*Cannabis sativa*), Gunja (*Abrus precatorius*), Bhallataka (*Semecarpus anacardium*), Karavira (*Nerium indicum*), Langli (*Gloriosa superba*), Arka Ksheera (latex of *Calotropis gigantea*) and Snuhi Ksheera (latex of *Euphorbia neriifolia*). 9 Visha including Vatsnabha and 11 Upavisha have been described. Preparation of Kshara Sutra, properties of snake poison, Shodhana of Rakta Chitraka, Vriddha Daraka, Nimbu Beeja, Hingu and Guggulu is given. Various formulations containing these poisonous plants have been described for medicinal purpose.

The author gives description regarding period of completion of this book in last chapter. Later translators have added a Hindi Parishista consisting of few formulations in the end of the book.

Peculiarity

On over viewing the text, it is clear that Acharya Sadananda Sharma has mentioned only those procedures which are realistic and feasible in present scenario. He has learned the processes from his tutor and then only included them in this book. He makes no astounding claims for his repertory of medicines. Unique property of text lies in exhaustive list of therapeutic indication with proper Sahapana and Anupana (dietary adjuvant). He has omitted the mythical part of Rasashastra comprising of metal transformation of lower metals to gold, 18 Samskaras, Divaushadhis, Bandhas etc. This gives more practical and realistic approach to the subject.

He has also avoided mentioning the unnecessary varieties of different Rasa Dravyas for example he mentions only on type of Gandhaka. It is a deviation from previous texts. He enumerates many synonyms of Rasa Dravyas. He has not classified the drugs as routinely under Maharasa, Uparasa etc. Rather he has stuck to more scientific background for classification of Rasa Dravyas. He has placed all arsenicals in chapter 11 and other bearing similar resemblance like Khatika, Sphatika and Godanti are also placed in same chapter. All the Dravyas obtained from sea are placed in 12th chapter (calcium preparations). Mandura has been placed in Lauha chapter to indicate presence of iron in it. Ratnas and Visha Dravyas are separately placed. Kasisa contains iron, so it has been placed under Upadhatu Varga.

Drugs of herbal origin like Kampillaka and Kamkustha have been excluded. Similarly Agnijara has been omitted due to its no

therapeutic use in present era. Mishra Dhatu (alloys) contains Dravyas having fractions of more than one metal. Therefore Pittala, Kamsya, Anjana and Shilajatu have been clubbed together.

Acharya Sadananda Sharma has also mentioned artificial preparation of Hingula, Manahshila, Haratala etc. He has Sanskritized few chemicals of modern chemistry and discussed their preparation and usage in detail in Ayurvedic parlance. Few sanskritized terms notable to mention are Gandhakamliya Yashada, Sorakamliya Rajata, Soraka Drava, Lavana Drava etc.

To pay a tribute to his guide, Kaviraj Narendra Nath Mitra, Sadananda Sharma has included his comments in a special chapter named Chapala Nirnaya placed after 9th Taranga. It includes ancient and modern description pertaining to Chapala concerned with its correlation for Bismuth or Selenium. Citing various references, it is concluded that selenium should be considered as Chapala.

CONCLUSION

Rasatarangini can be considered as one of the most authentic book written on Rasashastra having a practical approach. It has provided a scientific approach to the procedures of Rasashastra. Primordial science of Rasashastra with a comprehensive intrinsic chemistry approach as envisaged in Rasatarangini can benefit the science and society.

REFERENCE

1. Sadananda Sharma. Rasatarangini. 11th ed. New Delhi: Motilal Banarsidas Publishers; 1982.

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