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Review Article

RAJATA (SILVER) IN AYURVEDIC PHARMACEUTICS – “A REVIEW”

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ABSTRACT

Ayurveda the science of life, is in common practice in Asian subcontinent predominantly in India since *Vedic* period, is at verge of global acceptance due to its holistic approach of well being for human kind. It deals chiefly with mineral/metal processing for therapeutic purposes. Many minerals and metals were known to the Indians since the pre-*vedic* period. *Rajata* is one among them which is in use since *vedic* era. It is placed in *dhatu varga* in *Ayurvedic* pharmaceuticals. *Rajata* has various therapeutic uses. In this review article an attempt has made to explore the wide range of description of *Rajata* since *vedic* period to till date.

Keywords: *Ayurveda, Rajata, Vedic, Dhatu, Varga*

INTRODUCTION

Rasa Shastra is an important branch of *Ayurveda* deals with the pharmaceutical learning. It explains mainly the pharmaceutical processing's of drugs for therapeutic purposes. Animal, herbal, metal, mineral and aquatic origin drugs are mainly described in *ayurvedic* pharmaceuticals. Many minerals and metals were known to the Indians since the pre-*vedic* period. Copper, gold, silver, iron, lead and tin were identified in *vedic* era. Earlier it was used to produce various objects like hunting tools, knives, suturing, niddles, house hold utensils etc. Further pharmaceutical techniques and therapeutic properties were also recognized, to make them suitable for the human system since mediaeval period with the development of *Rasa shastra*. In *Rasa* literatures, metals have been given much importance for therapeutics and alchemical purposes.

Rajata was known in *vedic* era with different name e.g. 'Ayas',¹ 'Rajata' and 'Arjuna',² etc.

The texts of *samhita kala* had detailed description of *Rajata* for therapeutic purposes³⁻⁵. Since the development of *Rasa shastra* in mediaeval period, the elaborated description of *Rajata* is found.

Grouping of *Rajata* in different texts-

Different texts of *rasa* literature had put *Rajata* in various group like *saralauha*, *sudhalauha* and *saptalauha*⁶⁻⁸.

Mythological origin⁹--

Ancient texts of *ayurvedic* pharmaceuticals had mentioned mythological origin of many metal and minerals used in the manufacturing of *ayurvedic* drugs. *Rajat* was supposed to have following origin-

1. Outcome of tears from the third eye of lord Shiva.
2. With the help of mercury, tin changes into silver.

Varieties-

Acharya Vagbhatta had classified *Rajata* into 3 types¹⁰ -

Sahaja- obtained from the *Kailash Mountain*.

Khanija- obtained from the hills of Himalayas.

Kratrim - tin was changed into silver from the touch of lord Rama from the *vedhan karma* of mercury.

Synonyms¹¹ -

Raupya, Sudha, Tara, Sweta, Shukla, Dhawal, Chandrasah, Ruchir are the synonyms described in various *Rasa* Texts.

Pharmacological properties¹²-

Rasa- Madhura, Kasaya, Amla

Guna- Snigdha, Guru, Sara

Virya- Sheeta

Vipaka-Madhura

Effect on *Doshas* - Vata Kapha destroyer

Properties of good quality *Rajata*¹³-

1. Good quality *Rajata* should be heavy, smooth, soft and white in color like *Shankha* or moon.
2. It should bear heat and hammering.
3. In the intense fire it becomes more white and bright.
4. After cutting and heating it should be clear, non brittle, white and solid.

Properties of inferior quality *Rajata*¹⁴

1. On heating *Rajata* becomes yellowish red, rough and light.
2. On hammering breaks with cracks and looks hard.
3. It is thick.

Pharmaceutical Processing's:

Metals and minerals of *Rasa Shastra* can be used internally only after *Shodhana* (purification) and *Marana* (calcination). After these processes materials are converted into very fine particles and can be absorbed and therapeutically effective.

Shodhana Process (purification)^{15,16,17}:

Different methods of *Rajata Shodhana* are described in the different texts of ayurvedic pharmaceuticals which are summarized in table 1.

Process of Rajata marana (Calcination) : This process is carried out to convert shodhit (purified) Rajata into the therapeutic important dosage form i.e. Bhasam form. It changes heavy, hard and rough properties of the material into light, smooth, soft properties. *Marana* changes herbomineral compounds in the colloidal state to facilitate absorption and assimilation in the body system.

Different methods of Rajata Marana^{18,19,20} - are tabulated in table 2.

Therapeutic uses²¹ -

According to *Rasa* texts *Rajata* is therapeutically effective in following diseases-

1. Diseases of nervous system- *Buddhismritikshaya, Apasmara, Unmada, Bhrama, Shirovikar, Madatyaya, Nadishoola.*
2. Diseases of respiratory system- *Kasa, Shwasa.*
3. Diseases of digestive system- *Ajirna, Prameha, Udarroga, Trishna, Mukhvikar, Arsha.*
4. Diseases of reproductive system- *Garbhashaya Shodhaka.*
5. Diseases of blood- *Pandu.*
6. Diseases of liver- *Plehadara.*
7. Miscellaneous- *Netra Roga, Kshaya, Pittaja Roga, Udara Roga, Vataja Roga, Kaphaja Roga, Daha, Purana Jwara, Timir, Palitya, Khalitya.*

Antidote²² - Honey and *Misri* (sugar) for 3 days.

Dose²³ - ¼-1 Ratti (30-120mg)

CONCLUSION

On the basis of above study it is concluded that *Rajata (Silver)* is a potent metals used in *Ayurvedic* pharmaceuticals since a long time.

In classics *Rajata* has been greatly acclaimed not only as *rasayan* but also the curer of the hardly curable disorders even. It has been included in different groups by different authors. Classical texts had described its many types and pharmaceutical processes. Various researchers have worked on analytical and biological effects of *Rajata* and reported that is a potent immunodialator drug.

More research is needed in on the metal *Rajata* to establish their claimed therapeutic potential.

REFERENCES

1. Sir P C Ray, History of Hindu Chemistry ,1902
2. Prof. P.V. Sharma Ayurveda Ka Vaijanika Ithas , Chaukhamba Orientallie, 8th Edition, 2005,
3. Pt. Kashinath Shastri, Acharya Charaka's Charaka Samhita, Chaukhamba Sanskrit Samsthana, 8th Edition 2004.

4. Pt. Ambika Dutt Shastri, , Acharya Sushruta's Sushrut Samhita, Chaukhamba Prakashan, 14th Edition 2005.
5. Astanga Sagraha Sutra edited by Pandit Lalchandra Shastri Viadya, Shri Vaidyanath Ayurveda Bhawan, Nagpur, Ed.-1st, 1989.
6. Rasa Ratna Samucchaya Vigyana Bodhini Commentary Page Vagbhatacharya, with Vigyana Bodhini Hindi commentary by Prof. Dattatreya Anant Kulkarni, Meharchand Lakshmandas Publication, New Delhi, Vol.I, Reprint, 1998.
7. Rasendra Chudamani 10/100, Acharya Somadeva, with Siddhiprada Hindi Commentary by Siddinandan Mishra, Chaukhambha Orientalia, Varanasi, Ed. 1st, 1984.
8. Rasatarangini edited by Pandit Kashinath Shasti, Motilal Banarasidas, 41 U.A. Banglo Road, Jawahar Nagar, Delhi 110007, 11th edition 2012.
9. Rasa Ratna Samucchaya Vigyana Bodhini Commentary Page Vagbhatacharya, with Vigyana Bodhini Hindi commentary by Prof. Dattatreya Anant Kulkarni, Meharchand Lakshmandas Publication, New Delhi, Vol.I, Reprint, 1998.
10. Ayurveda prakasha Acharya Sri Madhava, with Arthavidyotini and Arthaprakashini Sanskrit and Hindi commentaries by Shri Gulraj Sharma Mishra, Chaukhambha Bharti Academy, Varanasi, Repirnt 1999.
11. Rasa Ratna Samucchaya Vigyana Bodhini Commentary Page Vagbhatacharya, with Vigyana Bodhini Hindi commentary by Prof. Dattatreya Anant Kulkarni, Meharchand Lakshmandas Publication, New Delhi, Vol.I, Reprint, 1998.
12. Rasatarangini edited by Pandit Kashinath Shasti, Motilal Banarasidas, 41 U.A. Banglo Road, Jawahar Nagar, Delhi 110007, 11th edition 2012
13. Rasa Ratna Samucchaya Vigyana Bodhini Commentary Page Vagbhatacharya, with Vigyana Bodhini Hindi commentary by Prof. Dattatreya Anant Kulkarni, Meharchand Lakshmandas Publication, New Delhi, Vol.I, Reprint, 1998.
14. Yoga Ratnakara , Mayupada Bhikshu, with Vidyotlini Hindi Commentary by Vaidya Lakshmiapati Shastri, Chaukhambha Sanskrit Sansthan and Ed. - 8th, 2004.
15. Rasatarangini edited by Pandit Kashinath Shasti, Motilal Banarasidas, 41 U.A. Banglo Road, Jawahar Nagar, Delhi 110007, 11th edition 2012.
16. Rasa Ratna Samucchaya Vigyana Bodhini Commentary Page Vagbhatacharya, with Vigyana Bodhini Hindi commentary by Prof. Dattatreya Anant Kulkarni, Meharchand Lakshmandas Publication, New Delhi, Vol.I, Reprint, 1998.
17. Rasendra Chudamani 10/100, Acharya Somadeva, with Siddhiprada Hindi Commentary by Siddinandan Mishra, Chaukhambha Orientalia, Varanasi, Ed. 1st, 1984.
18. Rasendra Sarasamraha 1/234 , Gopal Krishna Bhatt, with Satyarth, Reprint-2000.

19. Rasendra Chudamani 10/100, Acharya Somadeva, with Siddhiprada Hindi Commentary by Siddinandan Mishra, Chaukhambha Orientalia, Varanasi, Ed. 1st, 1984.
20. Rasa Ratna Samucchaya Vigyana Bodhini Commentary Page Vagbhatacharya, with Vigyana

- Bodhini Hindi commentary by Prof. Dattatreya Anant Kulkarni, Meharchand Lakshmandas Publication, New Delhi, Vol.I, Reprint, 1998.
21. Rasatarangini edited by Pandit Kashinath Shasti, Motilal Banarasidas, 41 U.A. Banglo Road, Jawahar Nagar, Delhi 110007, 11th edition 2012.

Table 1: Details of Rajata Shodhana according to different texts

Name of the drug used for Shodhan of Rajata	Technique/repetition
<i>Pishachi (jatamansi) taila +Naga+Tankada</i>	<i>Nikshepa and Dravana</i>
<i>Sisa(Naga)</i>	<i>Dhamapana</i>
<i>Naga, Tankana, Kshara, Amla</i>	<i>Dravana, Pachana</i>
<i>Agastya patra Swarasa</i>	<i>Nirvapa/3 times</i>
<i>Malkangni Taila, Sisa</i>	<i>Nirvapa/3 times, Dhamapana</i>
<i>Naga, Tankada</i>	<i>Dravana</i>
<i>Nimbu Swarasa and Changeri Swarasa</i>	<i>Nirvapa</i>
<i>Alkalies and acids</i>	<i>Pachana</i>

Table 2: Methods of Rajata Marana according to different texts

S.N.	Name of the drug used for marana	Bhawana dravya	No. of puta
1.	<i>Swarnamakshika, Gandhaka</i>	<i>Arka dugdha</i>	<i>1</i>
2.	<i>Hartala, Gandhaka</i>	<i>nimbu swarasa</i>	<i>3</i>
3.	<i>Parada, Gandhaka, Lakucha Swarasa</i>	<i>Lakuch swarasa</i>	
4.	<i>Hartala</i>	<i>Nimbu swaras</i>	<i>12</i>
5.	<i>Makshika Churna</i>	<i>Nimbu swarasa</i>	<i>30</i>
6.	<i>Swarnamakshika</i>	<i>Snuhi Ksheer</i>	<i>Few</i>
7.	<i>Hingula</i>	<i>Nimbu swaras</i>	
8.	<i>Parada, Hartala, Gandhaka</i>	<i>Nimbu swarasa Lakuch swarasa</i>	<i>Dridagni after that 12 puta</i>
9.	<i>Makshika, Hingula</i>		<i>1</i>
10.	<i>Parada, Hartala, Gandhaka</i>	<i>Nimbu swarasa</i>	<i>1</i>
11.	<i>Parada, Gandhaka,</i>	<i>Gritkumari swaraas</i>	<i>Few times</i>
12.	<i>Makshika, Hingula</i>	<i>Nimbu swarasa</i>	<i>Few</i>
13.	<i>Parada, Hartala, Gandhaka,</i>	<i>Nimbu swaras</i>	<i>2-3</i>
14.	<i>Makshika, Hingula</i>		<i>1</i>
15.	<i>Gandhaka, Hingula</i>		<i>1</i>

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