

***Rajata* in Ayurvedic therapeutics**

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ABSTRACT

Metals and minerals are known to human beings since pre-vaedic period. Earlier they were used for domestic purposes as to make household things like knife, utensils, hunting tools e.t.c. Later on their use was started to procure health. After that therapeutic properties of metals were also recognized and their use was started to treat the diseases. *Rajata* is also well known metal used in ayurvedic therapeutics since *samhita kala*. With the development of *Ras Shastra* processing technologies of metals developed. Various methods of *shodhan* and *marana* were introduced and use of *Rajata bhasma* in many formulations was started to treat severe diseases. In this paper effort have been made to compile ayurvedic formulations indicated in many acute and chronic diseases in which *Rajata* is an important ingredient.

Key words: *Rajata*, Ayurveda.

INTRODUCTION

Ayurveda is most ancient medical system of India known to human being since time immemorial. It is as old as Indian civilization. It is science of life. In ayurvedic literature, diseased condition is defined as imbalance or loss of equilibrium of natural harmony of body, mind and spirit. Ayurveda not only guide to maintain this harmony but also recommend the various ways to normalize the deranged harmony among body mind and spirit.

Medicines of Ayurveda can be divided into two groups: *Kasthaushdhies* and *Rasaushdhies*. *Rasaushdhies* are mainly prepared from metlas and minerals. These are more famous among the vaidyas because of their certain qualities like quick action, low doses, tastelessness, long shelf life e.t.c. *Ras Shastra* is an important branch of Ayurveda in which materials obtained from earth are processed and changed into therapeutically useful

medicaments. These medicines are known as *Rasaushdhies*. Development of *Ras Shastra* was started in 600 B.C. Materials of *Ras Shastra* were divided in different groups like *Maharasa*, *Uparasa*, *Sadharan Ras*, *Dhatu*, *Updhatu*, *Ratna*, *Upratna*, *Visha*, *Upvisha*, *Sudha* and *Sikta varga* e.t.c. *Samanya shodhan*, *vishesh shodhana*, *Marana*, *Jarana*, *Murchchna*, *Amritikaran*, *Lohitikaran* like specialized mineral processing techniques. These are used in various dosage forms like *shuddha dravya*, *bhasma*, *druti*, *satva*, *parpati* and *pottali*.

Rajata is a metal kept in *Dhatu Varga*. Since vaedic period people were known to its properties of increasing immunity power, body strength, mind and satva. To achieve long life people used silver pot to drink water and eat food. In *samhita kala* metals were being used in *churna* form in different formulations. Later processing technology of *Rajata* developed and *Rajata Bhasms* was being prepared with the help of different drugs. Thus use of *Rajata bhasma* started in pure *bhasma*

Table 1:

S. N.	Formulation	Ingredient Metals/Minerals	Ingredient Herbal/Others	Processed in	Indication
1.	Jwarankush Rasa B.R.- 5/949-955	Shuddha Parad, Shuddha Gandhak, Tamra Bhasma, Hingula, Hartala, Lauha Bhasma, Vanga Bhasma, Swarnamakshik Bhasma, kharpara, Manahshila, Swarna bhasma, Abhraka Bhasma, Swarnagairika, Suhaga, Rajata Bhasma,		Jambiri nimbu swarasa, tulsi swarasa, chitrak kwath, vijaya swarasa, titindeeka swarasa	All type of jwar
2.	Shri Jai mangal Rasa B.R.-5/1061-1067	Hinguloth Parad, Shuddha Gandhak, Suhaga, Tamra Bhasma, Vanga Bhasma Swarnamakshik, Saindhava, Swarna bhasma, Kantlauha bhasma, Rajata bhasma,	Marich Churna,	Dhattura patra swarasa, Shephalika patra swarasa, Dhasmula kwath, Chiraiyata kwath, Nirgundi, Pana, Makoya,	All types of jwara, sarvarog nashaka
3.	Visham Jwarantaka lauha B.R.-5/1155-1161	Shuddha Parada and Gandhaka, Mrita Parada, Swarna Bhasma, Rajata Bhasma, Lauha Bhasma, Abhraka Bhasma, Tamra Bhasma, Vanga Bhasma, Mukta, Pravala, Swarnamakshika, Hartala satwa,		Pittapapada, Triphala, Karela, Dashmula, Punarnava, Giloya, Adulsha Bhangara,	All types of jwara
4.	Apoorvamalini vasant rasa B.R.-5/1208-1210	Vaikranta Bhasma, Abhraka Bhasma, Tamra Bhasma, Swarnamakshika Bhasma, Rajata Bhasma, Vanga Bhasma, Munga, Parada,	Kasturi, Kapoora	Shankha, Shatawar and Haridra kwath	Dhatu jwar, prameha, mutrakrichcha, ashmari

5. Piyushvalli rasa B.R.- 8/334-335	Lauha, Tankada, Shankha Bhasma, Shuddha Parada, Shuddha Gandhaka, Abhraka Bhasma, Rajata Bhasma, Lauha Bhasma, Tankada, , Swarnamakshik,	Lavanga, Swetachandana, Patha, Swetajeeraka, Varahakranta, Ateesh, Lodhra, Kutaja, Indrayava, Jaiphala, Sunthi Bilva, Dhattura, Dadima, Manjistha, Dhataki, Kustha, Rasanjana	Bhringaraja swarasa (blue)	Atisar, Jwar, Raktatisar, Sangrahni, Pichchasrava, Trishna, Sarvanga Daha, Hillasa, Aruchi, Vamana, Gudabhrinsa, Pleehavridhhi, Prameha, Raktapradar, Kamala, Pandu, Amadosha yukta Atisar, Arsha, Rajyakshma, Shotha, Kamala, Pandua, Pleehavridhhi, Kustha, Prameha, Daruna jwar, Rajyakshma, Jwar, Gulma, Vidradhi, Mandagni, Swarbheda, Kasa, Aruchi, Vaman e.t.c. Kshaya, Tridosha Pandua, Kamla, Vataja rog Shopha, Pratishyaya, Arsha, Shoola, Swasha, Kasa, Swarbheda, Kasa, Swasa, Shleshmic
6. Vijaya parpati B.R.- 8/461-484	Awalasar Gandhak, Shudda Parada, Rajata, Swarna, Vajra, Mukta,			
7. Mahamraganka rasa B.R.-14/162-169	Swarna Bhasma, Parada Bhasma., Ras Sindura, Mukta Bhasma, Shuddha Gandhaka, Rajata Bhasma, Pravala Bhasma, Heeraka bhasma Swarna Bhasma, Rajata Bhasma, Abhraka Bhasma, Tamra Bhasma, Vanga Bhasma, Lauha bhasama, Naga bhasma, Mukta bhasma, Parada bhasma	Shuddha Vatsanabha	Binjaura Nimbu swarasa	
8. Laxmivilas rasa B.R.- 14/222-225			Madhu, chitrak kwath	
9. Kinnarkanth rasa B.R.- 17/15-20	Shuddha Parada, Shuddha Gandhaka, Abhraka bhasma, Swarnamakshika Bhasma,		Swarasa of Vasa, Bhringaraj, Vrahti, Adraka	

			and Brahmi	rog,
10. <i>Unmade bhanjan rasa</i> B.R.-24/41-45	Lauha Bhasma, Vaikranta Bhasma, Swarna Bhasma, Rajata Bhasma, <i>Vanga bhasma</i> , <i>Rajata Bhasma</i> , <i>Abhraka Bhasma</i> , <i>Pravala Bhasma</i> , Lauha Bhasma	<i>Sunthi</i> , <i>Maricha</i> , <i>Pipali</i> , Amla, Harada, Baheda, Gajapipali, Devdaru, Vaividanga, Chiralyta, Kutki, Kantakari, Mulethi, Indrayava, Chitrak, Bala, Pippalamula, Sahjan, Trivrata, Indravaruni		<i>Unmade</i> , <i>Apasmara</i> , <i>Raktapitta</i>
11. <i>Injdrabrahma vati</i> B.R.-25/19-20	<i>Rasasindura</i> , <i>Abhraka bhasma</i> , Lauha bhasma, <i>Rajata bhasma</i> , <i>Swanamakshika</i> , <i>Shuddha Gandhaka</i>	<i>Shuddha visha</i> , <i>Padmakeshar</i> ,	<i>Snuhidugdha</i> , <i>Chitraka</i> , <i>Bhanga</i> , <i>Eranda</i> , <i>Vacha</i> , <i>Sema</i> , <i>Suran</i> , <i>Sambhalu</i> , <i>Maikangni swarasa</i> , <i>Sarshapa taila</i>	<i>Apasmara</i>
12. <i>Yogaraj guggulu</i> rasayan B.R.-26/102-115	<i>Vanga Bhasma</i> , <i>Rajata Bhasma</i> , <i>Naga Bhasma</i> , <i>Lauha Bhasma</i> , <i>Rajata Bhasma</i> , <i>Mandura Rassindura</i>	<i>Sunthi</i> , <i>Pipalli</i> , <i>Pipalamule</i> , <i>Chavya</i> , <i>Chitraka</i> , <i>Hingu</i> , <i>Ajmada</i> , <i>Sarshapa</i> , <i>Jeerakadwaya</i> , <i>Renuka</i> , <i>Indrayava</i> , <i>Patha</i> , <i>Vaividanga</i> , <i>Gajapippali</i> , <i>Kutki</i> , <i>Atisha</i> , <i>Bharangi</i> , <i>Vacha</i> , <i>Murva</i> , <i>Triphala</i> , <i>Guggulu</i>		<i>Vata-vyadhi</i> , <i>kustha</i> , <i>Arsha</i> , <i>Grahni</i> , <i>Prameha</i> , <i>Vatrakta</i> , <i>Nabhishoola</i> , <i>Bhagandar</i> , <i>Udavarta</i> , <i>Kshaya</i> , <i>Apasmar</i> , <i>Gulima</i> , <i>Medovriddhi</i> , <i>Sukradosha</i> ,
13. <i>Trilokya chintamani</i> B.R.-26/198-203rasa	<i>Vajra bhasma</i> , <i>Swarna bhasma</i> , <i>Rajata bhasma</i> , <i>Teekshna Lauha bhasma</i> , <i>Abhraka bhasma</i> , <i>Rasa sindura</i> , <i>Shuddha parada</i> , <i>Abhraka bhasma</i> , <i>Swarna bhasma</i> , <i>Lauha bhasma</i> , <i>Rajata bhasma</i> , <i>Vanga bhasma</i> ,		<i>Gritakumari swarasa</i>	<i>Bala</i> , <i>Varna</i> , <i>Agni vardhaka</i> , <i>Ayu- vardhaka</i> , <i>Sarvarognashaka</i> , <i>Pakshagata</i> , <i>Ardita</i> , <i>Hanustambha</i> , All types of vata vyadhi
14. <i>Rasaraj B.R.- 26/204-208</i>		<i>Aswagandha</i> , <i>Lavanga</i> , <i>Javitri</i> , <i>Ksheerkakoli</i> ,	<i>Gritakumari</i> , <i>Kakamachi swarasa</i>	

15. Sarveshwar rasa B.R.- 27/77-82	<i>Parada, gandhaka, abhraka,</i> tamra, lauha, hingula, swarna bhasma, rajata bhasma, vajra bhasma, hartala	<i>Shuddha visha</i>	<i>Jambiri Nimbu,</i> Dhattur, Vasa, Snuhi, Arka, Kuchla, Kanera <i>Chitraka,</i> Hastisundi kwath	<i>Vata-rakta</i>
16. Kalyan sundar rasa B.R.-33/57-59	<i>Ras sindura, Abhraka bhasma,</i> Rajata bhasma, Tamra bhasma, Swarna bhasma, Hingula,			<i>Hridaya Rog, Vat</i> vikara, Phuphushgata vikara
17. Vasantakushumakar rasa B.R.-37/121-126	<i>Swarna bhasma, Rajata</i> bhasma, Vanga bhasma, Naga bhasma, Kantalauha bhasma, Abhraka bhasma, Praval, Mukta,		<i>Godugdha, Ikshu</i> swarasa, Vasa kwath, Laksha swarasa, Sugandhabala kwath, Kadalikanda swarasa, Malti swarasa	<i>Vai, Palita,</i> Medhya, Kamada, Prameha, Kshaya, Kasa, Swasa, Unmada, Raktavikara, Vishadosha
18. Mehantak rasa B.R.- 37/152-153	<i>Parada, Gandhaka, Lauha</i> bhasma, Rajata bhasma, Vanga bhasma, Abhraka bhasma, Swarna bhasma, <i>Tamra bhasma, Rajata</i> bhasma, Abhraka bhasma, Lauha bhasma, Mukta, Hingula, Parada, Gandhaka,	<i>Talamuli churna</i>		<i>Vata pitta janya rog,</i> <i>kanti pusti vardhaka</i>
19. Pleehantak rasa B.R.- 41/67-71		<i>Puskarmule churna,</i> Guggalu. Sunthi, Maricha, Pippali, Rasna, Jaipala, Haritaki, Vibhitaki, Amla, Kutki, Danti, Devdali, Saindhava, Nishotha, Yavakshar		<i>Udarrog, Pandu,</i> Anaha, Vishama jwar, Amajeerna, Kaphavikara, Kshaya, Yakrit- pleeha rog, Kasa, Swasa, Shotha
20. Pradarantak rasa B.R.- 66/49-51	<i>Parade, gandhkaa, vanga,</i> rajata, kharpara, varatika, lauha bhasma		<i>Gritakumari swarasa</i>	<i>Pradar rog</i>
21. Sutika vallabh rasa B.R.-69/102-105	<i>Parade, gandhaka,</i> swarnamakshika, abhraka, karpoora, swarna, hartala, rajata,	<i>Shuddha apheema, javitri,</i> jaiphala,	<i>mustaka, bala,</i> shalmali swarasa	<i>Sutikarog, grahni,</i> ati sara, agnimandya, durbalata

22. Makardhwaj rasayan B.R.-73/75-77	Swarna mukta pisti, vanga, kanta lauha, rajata bhasma, kansya bhasma, rasa sindura, pravala, abhraka Parade, gandhika, lauha, abhraka, rajata, swarna, swarnamakshika, Rajata, mukta, swarnagairic, lauha, pravala, shilajeeta, vaikranta, abhraka, rasa sindura, Ras sindure, abhraka bhasma, rajata bhasma, munda lauha bhasma, teekshna lauha bhasma, shuddha hartala, swarna makshik bhasma, shudda tankana Parada, Gandhaka, Tamra, Abhraka, Swarnamakshika bhasma, Swarna bhasma, Rajata bhasma, Shodhita Hartala, Kantalauha bhasma	Javitri, jaiphala, karpoora, kasturi, Shuddha bhanga, vanshalochana	Rasayana
23. Sukravallabh rasa B.R.-75/15—18	Vijaya kwatha	Sukra-stambhana	
24. Maha rajata vati B.R.- 82/13-15	Chitraka kwtha, makoya swarasa	Snayu-rog	
25. Jai mangal rasa R.S.S. 2/2/88-90	Patha, nirgundi, madhuyasti kwath, bilva mule kwath	Sannipata jwar	
26. Vrahat sarva jwarhar lauha R.S.S. 2/2/241- 253	Karvellaka swarasa, Dashmoola kwatha, Parpati kwath, Triphala kwatha, Guduchi kwath, Nagavalli swarasa, Kakamachi swarasa Nirgundi swarasa	All types of jwar	
27. Chudamani rasa- R.S.S. 2/2/352-357	Jwar, Sarvanga shoola, Kasa, Swasha, Vata pittaja, grahni, Arsha, Kamla, Prameha, Mutrakrichcha		

28. <i>Raj vallabh rasa-</i> R.S.S. 2/5/136-140	<i>Tankana, Lauha bhasma,</i> Abhraka bhasma, Tamra bhasma, Parada, Gandhaka, Rajata bhasma	<i>Jatiphala churna,</i> Lavanga churna, Mustaka churna, Twaka, Vrahadaela, Hingu, Jeeraka, Tejpatra, Yavani, Shunthi, Saindhava	<i>Dhatri swarasa</i>	<i>Shoola, Anaha,</i> Krami, Kushtha, Dadru, Vata rakta, Bhagandar, Updansh, Atisar, Grahni, Arsha, Pravahika Yakshama
29. <i>Raj mriganka rasa -</i> R.S.S. 2/11/3-7	<i>Rasa Sindura, Swarna bhasma,</i> Rajata bhasma, Manahashila, Gandhaka, Hartala, Varatika, Tankana		<i>Ajadugdha</i>	
30. <i>Ratna garbha pottali</i> rasa R.S.S. 2/11/14-19	<i>Rasa-sindura, Vajra bhasma,</i> Swarna bhasma, Rajata bhasma, Naga bhasma, Lauha bhasma, Tamra bhasma, Mukta, Swarnamakshika, Shankha bhasma, Shuddha Tuttha, Kaparda, Tankana	<i>Maricha, Vidruma,</i>	<i>Chitraka kwatha,</i> Arkadugdha, Nirgundi swarasa, Ardraka swarasa	<i>Maharog, Kasa,</i> Swash, Kshaya , Atisara
31. <i>Sanvanga sunder ras</i> R.S.S. 2/29/42-46	<i>Parada, Tamra bhasma,</i> Shuddha Manahshila, Swarnmakshika, Shuddha Hartala, Rajata bhasma, Swarna bhasma, Vanga Bhasma, Lauha bhasma, Abhraka bhasma, shuddha Gandhaka	<i>Shunthi churna, Pancha</i> lavana,	<i>Shunthi, Jayanti,</i> Vijaya, Maharastrika, Dhattura	<i>Kapharog, Vataroga,</i> Shoola
32. <i>Vrahat poorna</i> Chandra rasa- R.S.S. 5/52-66	<i>Parada, Gandhaka, Lauha</i> bhasama, Abhraka bhasama, Rajata bhasama, Vanga bhasama, Swarna bhasama, Tamra bhasama, Kansya bhasama,	<i>Jatiphala, Lavanga, Ela,</i> Bhrangaraj, Jeeraka, Karpoor, Priyangu, Mustaka	<i>Ghritkumari</i> swarasa, Triphala kwath, Erandamula kwath	<i>Kasa, Swasa</i> Vridhiroog, Aruchi, Amadosha, Shoola, Katisloola, Hhritashoola, Kamla, Pandu, Prameha,

form and in formulations too.

Brief description of *Rajata*

Mythological origin¹

Rajata is generated from the tears of third eye of lord shiva.

When Tin is processed with the help of mercury then it changes into silver.

Varieties²

- 3 types -*Sahaja, Khanija, Kratrim*
- 2 Types- *Tarshukla* and *Tarkrisna*.
- 3 Types- *Khanija, Vangaja & Vedhaja*

Properties of *grahya* and *agrahya Rajata*³

Rajata which is heavy, smooth, soft, white in colour like *Shankha* or moon, unaffected from intense heat is said to be taken for preparation of *Rajata* bhasma and which is thick, becomes yellowish red, rough and light on heating, breaks with cracks, looks hard on hammering should not be taken for pharmaceutical work.

Shodhan drugs⁴

Agastya patra Swarasa, Malkangni Taila, Nimbu Swarasa, Changeri Swarasa, Naga, Kshara, Amla, tankana

Marana drugs⁵

Parad, Hartal, Gandhak, , Swarnamakshik, and Hingula.

Pharmacological properties⁶ –

Rasa- *Madhur, Kasaya, Amla*

Guna- *Snigdha, Guru, Sara*

Virya- *Sheta*

Vipaka-*Madhur*

Effect on *doshas- Vata Kapha nashak*

Dose⁷

1/4-1 *Ratti* (31-125mg)

Chemical properties⁸-

Chemical name -silver

Symbol-Ag

Atomic number-47

Atomic weight-107.868

Melting point-961.93 °c

Boiling point-2212.6 °c

Specific heat-0.056 cal/gm/c at 20 c

Thermal conductivity-1.00(C.G.S.units)

Valency-1

Density-10.5

Hardness-2.3

Therapeutic uses of *Rajata*⁹

Since Vaidic period *Rajata* was used as an agent which maintains health of healthy individuals and increases life. *Acharya charak* has described *Indroka rasayan* which increases bal, buddhi, satwa and agni. *Rajata* is one important ingredient of this. He has also narrated that if a pregnant lady takes milk kept in silver pot then child born will have qualities like strong mind and vigour. *Sushruta* has told that silver acts as preventive agent against water born infections. When silver pot filled with hot water is kept over affected part, it relieves abdominal colic. A silver containing collyrium is mentioned for the treatment of *Shukti*

Acharya vagbhatta has said that a silver retard aging process and it has qualities of *lekhan* and *trsidosa shaman*. It is an ingredient of *churnanjana*.

Kashyap has told use of *rajata* in making *varanabandha* which prevents abortions. Besides these silver was also being used in making surgical instruments, vastinetra, pots for cotaining dfferent things.

After development of Ras Shastra use of *Rajata Bhasma* started in Ayurvedic compounds. Different Acharyas used silver bhasma in formulations of different diseases. Some of these formulations are summarized below-

DISCUSSION

Metals are known to us since long back. They were used in routine life in many ways. In Ayurvedic therapeutics they are being used since the period of *Charaka Samhita*. From 6th century onwards their use has been started in *bhasma* form along with different *Anupanas*. In combination with other drugs of *Ras Shastra* and *Bhaishhya Kalpana*, *Rajata* is being used in diseases of all the body system. Mainly it affects the nervous system. It increases the memory power and gives strength to neurons. Thus it affects every system of our body and works in many acute and chronic diseases.

CONCLUSION

Rajata is very important metal of *Ras Shastra*, which is being used for therapeutic purposes since *samhita kala*.

It increases strength of body and mind along with immunity power. Thus it has potent

Rasayan property.

Rajata acts as disinfectant, so it was used to protect water born infections. In the modern era it was successfully used for wound dressing.

Along with different herbal and mineral drugs it is used to treat many severe diseases.

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