

Review Articles

Therapeutic uses of *Swarnamakshika Bhasma* (A Critical Review)

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Abstract

Mineral drugs play an important role in *Ayurvedic* therapeutics. Looking to the superiority of the metals and minerals to that of herbal and animal drugs, the *Rasavaidyas* went on experimenting clinical trials over lot of metals and minerals and systematically separated some of them which were exclusively active therapeutically. *Swarnamakshika* is one such mineral which after proper purification and incineration become highly potent and utilised for diseases like *Jwara*, *Pandu*, *Prameha*, *Shwasa*, *Kasa*, *Kushtha*, *Anidra*, *Apasmar* etc.

Key words: *Swarnamakshika*, Herbomineral, *Pandu*, *Jwara*, *Prameha*, *Shwasa*, *Kasa*.

Introduction

Disease is one of the main causes of sorrow. It influences the total efficiency of human beings, resulting in inability to carry on their routine activities. Medicine is the tool by which the disease can be prevented or cured or controlled.

The history of medicine is very ancient. Literature reveal the chronological development of medicaments. Earlier, the herbs were more prevalent but later on when the therapeutic value of minerals and their processing were known and developed then these were also came in frequent use for medicinal purposes. The sources of drug material are herbal, mineral and animal. These are used in various forms in *Ayurvedic* therapeutics.

According to *Ayurveda*, equilibrium of *Dosha*, *Dhatu* and *Mala* are responsible for positive health. The herbs and minerals are equally efficient to check the imbalance which occurs during the diseased state. Due to certain better qualities like prompt action, small doses, tastelessness, effectiveness in incurable diseases and long shelf life, mineral preparations are preferred over herbal formulations. Raw materials of the mineral preparation are Mercury, Gold, Silver, Copper, Iron, Lead, Tin, Zinc, Mica, Sulphur etc.

Body consists of more than 70 elements and the deficiency of these essential elements causes various

disorders. The supplements of these elements are required in very small amount. Hence the *bhasmas* of metals and minerals are effective in small doses. These preparations are considered potent for the curative and preventive purposes and also provide strong and healthy body and delays ageing.

Swarnamakshika is well known material used to treat various diseases in the form of *bhasma* successfully since centuries as single or compound preparation with other herbomineral drugs. There are so many compound preparations mentioned in ancient texts in contexts of treatment of various diseases. In this article it has been tried to compile some effective formulations of *Swarnamakshika bhasma* from the *Ayurvedic* literature and presented in a classified way along with its pharmaceutical procedure.

Discussion

Swarnamakshika is a mineral of *MAharasa varga* used by *Rasavaidyas* as therapeutics since *Samhita* period. Specific description about its therapeutic use has not been made available during *Vedic* period. However in *Samhita* period, use of *Swarnamakshika bhasma* is made available in certain *Rasayogas*, but the pharmaceutical processing of conversion of raw *Swarnamakshika* into such form to make it suitable for therapeutic use, is not available in any *Samhitas*. But in text of Post *Nagarjuna* period, systemic and detailed description about identification, varieties, physical properties, *Shodhana*, *Marana* and its therapeutic use as *bhasma* alone or with other herbominerals, are described. In this study, it is found that *Swarnamakshika bhasma* is a therapeutic agent with

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Table 1: Swarnamakshika at a Glance

1.	Synonyms ^{1,2,3}	<i>Madhudhatu, Tapeeja, Madhumakshika, Makshikadhatu, Tapyra, Sonamakhi, Peetaka, Kshudradhatu, Avarta, Apeeta, Nadeej, Tapyadhatu, Kanchanabhasa, Hemamakshika</i> etc ^{1,2,3} .
2.	Chemical Name	Copper Iron Pyrite (Cu FeS ₂)
3.	<i>Varna</i> ⁴ (colour)	Swarna varna ⁴ (Bright Yellow Colour with slightly bluish tinge)
4.	Grahya Swarupa ⁵ (Ideal characteristics)	<i>Swarnavarna</i> (Golden appearance), <i>Nishkona</i> (Without angle), <i>Guru</i> (Heavy), <i>Snigdha</i> (Smooth), Produces golden lining on touching stone etc ⁵ .
5.	Agrahya Swarupa ⁶	<i>Khara</i> (Rough), <i>Gurutaviheena</i> (Light), <i>Pravritakona</i> (With angle) <i>Kharlohakabhama</i> (Lustre like khara variety of loha)
6.	Specific density	5
7.	Hardness	6
8.	Types ⁷	1. <i>Swarnamakshika</i> 2. <i>Rajatmakshika</i>
9.	<i>Shodhana</i> ^{8,9,10}	<i>Bharjana</i> in <i>Nimbu Swarasa</i> till red hot for 3 days. Or <i>Nirvapana</i> in <i>Nimbu swarasa</i> for 21 times. Or Swedana in <i>Kadalikanda swarasa</i> till 1 hour.
10.	<i>Marana</i> ^{11,12,13}	Triturated in <i>Nimbu Swarasa</i> and subjected to puta for 10 times. Or Mix equal amount of Sulphur, triturated with <i>Nimbu swarasa</i> and subjected to puta for 5 times. Or Mix 1/8 part of <i>Hingula</i> , triturated with <i>Nimbu swarasa</i> and subjected to puta for 8 times.
11.	<i>Satvapatana</i> ^{14,15,16}	Mix 1/30 part of Purified <i>Naga</i> , doubled quantity of <i>Kshara traya</i> rubbed in sour liquid, prepared a ball, dried, kept in an open crucible and subjected to intense fire. Or Mix ¼ part <i>Tankana</i> , kept in a crucible and subjected to intense fire Or Triturated with <i>Gomutra, Erand taila, Kadalikanda swarasa</i> and <i>Goghrita</i> , 7 times in each liquid, kept in a crucible and subjected to intense fire.
12.	<i>Satvamarana</i> ¹⁷	Mix with equal quantity of Purified <i>Parada</i> and <i>Gandhaka</i> , triturated with <i>Nimbu swarasa</i> and subjected to three intense puta.
13.	<i>Guna</i> ¹⁸	<i>Rasa-Madhura & Tikta, Guna - Snigdha, Virya - Sheeta, Vipaka - Katu Dosha-Tridoshashamaka, Karma-Vrishya, Yogavahi, Rasayana, Chakshushya</i> etc.
14.	<i>Vyadhi Prabhava</i> ^{19,20}	<i>Jirna Jwara, Apasmar, Mandagni, Aruchi, Anidra, Pandu, Shotha, Kushtha, Kshaya, Prameha</i> etc.
15.	<i>Dose</i> ²¹	½ to 2 <i>Ratti</i>
16.	<i>Anupana</i> ²²	<i>Vidanga, Trikatu, Triphala, Ghrita</i>

Table 2: Formulations containing Swarnamakshika Bhasma and their Uses

Sr. No.	Formulation	Ingredient		Processed in	Indication
		Metals/Minerals	Herbal/Others		
1	<i>Apoorvamalinivasanta Rasa</i> (B.R.37/184-186)	Rasasindura, Abhraka, <i>Tamra, Rajata, Vanga, Pravala, Loha & Sankha-bhasma Shu. Tankana</i>	Kasturi, Karpura	<i>Shatavari & Haridra kwatha</i>	Prameha, Jirnajwara, Mutrakrichha, Ashmari
2	<i>Chandraprabha Vati</i> (B.R.37/102-110)	Loha bhasma Shu. Shilajatu	Guggulu, Karpura, <i>Vacha, Motha, Chiraita, Devadara, Haridra, Ativisha, Daruharidra, Trikatu, etc.</i>	Triphala kwatha	Prameha, Ashmari, <i>Mutraghata, Pandu Kamala, Halimaka, Shwasa, Kasa, Kushtha</i> etc.
3	<i>Chintamani Rasa</i> (R.S.S. Jwara/ 317-322)	Kajjali, Loha, Tamra, <i>Rajata, Swarna, Kharpara, Kamshya, Vanga, Pravala & Mukta bhasma, Shu. Kasisa, Shu. Haratala</i> etc.	Shu. Tankana, Karpura		All types of <i>Jwara, Kasa, Shwasa, Shotha, Pandu, Halimaka, Yakrita & Pliha roga</i> etc.
4	<i>Kamadhenu Rasa</i> (B.R.88/27-28)	Rasasindura, Abhraka, <i>Naga, Swarna, Rajata & Kharparbhasma</i>	Karpura	Kamala pushpa Swarasa	Prameha, Jirnajwara, <i>Rajayakshama</i> etc.
5	<i>Purnachandra Rasa</i> (B.R. 74/71)	Rasasindura, Abhraka, & <i>Lohabhasma, Shu. Shilajatu</i>	Vidanga churna	-	Vrishya

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Table 2: Contd/-

Sr. No.	Formulation	Ingredient		Processed in	Indication
		Metals/Minerals	Herbal/Others		
6	Rasa Raja Rasa (B.R.5/913-916)	Kajjali, Shu.Manahsila, Shu. Haratala, Tamrabhasma, Shu. Bhallataka	-	Snuhi dugdha	All type of <i>Jwara</i>
7	Ratna Garbha Pottali (B.R.14/178- 180)	Rasasindura, Swarna, Vajra, Rajata, Tamra, Mukta, Pravala, Shankhabhasma, Shu. Tuthya & Tankana	Maricha churna	Chitraka kwatha, Arka dugdha, Nirgundipatra swarasa, Adrakaswarasa	All types of <i>Jwara</i> , <i>Rajayakshama</i> , <i>Ashamari</i> , <i>Kushtha</i> , <i>Prameha</i> , <i>Arsha</i> , <i>Udararoga</i> , <i>Kasa Bhagandara</i> , <i>Shwasa</i> , <i>Atisara</i> etc.
8	Shakraballabha Rasa (B.R.75/15-18)	Kajjali, Loha, Abhraka, <i>Rajata & Swarnabhasma</i>	Vanshalochana, Bhanga beej	Bhanga kwatha	Shukradosha, Shighrapatana
9	Shwasakasa <i>Chintamani Rasa</i> (B.R.16/57-59)	Kajjali, Swarna, Mukta & <i>Abhrakabhasma</i>	-	<i>Kantakari & Tambulapatra Swarasa Ajadugdha & Mulethi kwatha</i>	Kasa, Shwasa
10	Sarveshwara Rasa (B.R.37/116-119)	Swarna, Rajata, <i>Mukta & Lohabhasma Shu. Shilajatu</i>	Mulethi, Trikatu	Bhringaraja & <i>Bhanga Swarasa</i>	All types of <i>Prameha</i>
11	Vasantatilaka Rasa (B.R.37/116-119)	Loha, Vanga, Swarna, <i>Abhraka, Pravala, Rajata & Muktabhasma</i>	Javitri, Jayaphala, Dalchini, Ela, Tejapatra, Nagakeshara	Triphala Kwatha	<i>Prameha</i> , <i>Vataja</i> , <i>Pittaja & Kaphaja Vyadhi</i> , <i>Apasmara</i> , <i>Visuchika</i> , <i>Unmada</i> etc.
12	Vatagajankusha Rasa (B.R.26/116-120)	Rasasindura, Loha, <i>Shu. Gandhaka, Haratala & Tankana</i>	Haritaki, Karkatashringi, Trikatu, Agnimantha Shu. Vatsanabha	<i>Mundi & Nirgundi Swarasa</i>	All <i>Vata Vyadhi</i>
13	Yogaraja Rasa (C.S.16/80-86)	<i>Lohabhasma & Shu. Shilajatu</i>	Trikatu, Triphala, Chitrakamoola, Vidanga, Mishri	Madhu	<i>Pandu</i> , <i>Kasa</i> , <i>Kushtha</i> , <i>Arsha</i> , <i>Prameha</i> , <i>Aruchi</i> , <i>Kamala</i> , <i>Apasmara</i> , <i>Shwasa</i> , etc.
14	Sawasachintamani <i>Rasa</i> (B.R.16/53-55)	Kajjali, Swarna, Loha & <i>Abhrakabhasma</i>	-	Kantakari, Adraka Ajadugdha Mulethi Kwatha	Shwasa, Kasa, Rajayakshama
15	Piyushavalli Rasa (B.R. 8/334-345)	Kajjali, Abhraka, Loha & <i>Rajatabhasma Shu. Tankana</i>	Rasanjan, Lavanga, <i>Shwetachandana</i> , <i>Patha</i> , <i>Shwetajiraka</i> , <i>Ativisha</i> , <i>Lodhra</i> , <i>Jayaphala</i> , <i>Shunthi</i> , <i>Dadima patra</i> etc.	<i>Bhringaraja Swarasa & Ajadugdha</i>	Atisara, Trishna, <i>Jwara</i> , Sangrahani, Aruchi, Vamana, Gulma, Udararoga, Kamala Raktapradara, Pandu
16	Balarogantaka Rasa (B.R.71/112-118)	Kajjali	Maricha	Bhringaraja, Nirgundi, <i>Kakamachi</i> , <i>Shalincha</i> , <i>Grismasindura & Aparajita Swarasa</i>	<i>Tridoshaja & Amaja Jwara</i> , <i>Kasa & All Diseases of Children.</i>
17	Dantodabheda <i>Gadantaka Rasa</i> (B.R.71/112-118)	<i>Abhraka & Lohabhasma</i>	Panchakola, Ela Ajamoda, Yavani, Haridra, Mulethi, Daruharidra, Devadaru, Vidanga, Nagakeshara	Dugdha	Dantodabhavajanya Vyadhi
18	Makshikadi Vati (B.R.64/237-239)	<i>Kajjali</i> , <i>Abhraka & Swarnabhasma</i> , Muktapishti	-	Kakamachi Patra Kwatha	Netra Roga
19	Makshikadi Churna (B.R.88/25-26)	Kajjali, Abhraka, Loha & <i>Kharparabhasma</i> , <i>Shu. Shilajatu</i> , <i>Shu. Gairika</i>	Shalmali Pushpa, <i>Moola & Twak</i> , <i>Vidarikanda</i> , <i>Gokshura beeja</i>	-	Shukrameha
20	Indushekhara Rasa	Rasasindura,	-	Bhringaraja,	<i>Jwara</i> , <i>Shwasa</i> , <i>Kasa</i> ,

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Table 2: Contd/-

Sr. No.	Formulation	Ingredient		Processed in	Indication
		Metals/Minerals	Herbal/Others		
	(B.R.68/94-98)	<i>Abhraka, Pravala & Lohabhasma, Shu. Haratala, Shu. Shilajatu</i>		<i>Arjuna, Vasa, Nirgundi, Kutaja & Kamala Kwatha</i>	<i>Grahani, Vamana Shirahshula, Raktatisara, Agnimandya, Alasya, Daurbalyata of Pregnant women</i>
21	Garbhavinoda Rasa (B.R.68/82-83)	Shu. Hingula	Trikatu, Javitri, Lavanga	Water	All disease of Pregnant women
22	Brihat <i>Garbhachintamani</i> Rasa (B.R.68/91-93)	<i>Kajjali, Swarna, Rajata, Abhraka & Vangabhasma, Shu. Haratala</i>	-	<i>Brahmi, Vasa, Bhringaraja, Dashamoola & Kwatha</i>	All disease of Pregnant women
23	Prabhakara Vati (B.R.33/42-43)	<i>Loha & Abhraka bhasma, Shu. Shilajatu</i>	Vanshalochana	Arjuna twak Kwatha	Hridaya Roga
24	<i>Nityodaya</i> Rasa (B.R.15/146-152)	<i>Kajjali, Abhraka Swarna & Rajatabhasma, Shu. Manahsila</i>	Javitri, Jayaphala, Jatamansi, Lavanga, Ela, Talishapatra	<i>Brihat Panchamoola, Bala, Motha & Amalaki Swarasa</i>	Jirnajwara, Kasa, Arsha, Yakshama, Pandu, Prameha
25	Panchalohabhapati Rasa (R.Y.S.,P-7/72-78)	<i>Kajjali, Tamra, Loha, Manikya & Rajatabhasma, Shu. Kasisa</i>	Vatsanabha	Hansaraja Swarasa	<i>Vishamajwara, Vataroga, Shwasa, Vatajaprameha, Kasa, Kshaya, Pandu, Kamala etc.</i>
26	Panchavakra Rasa (R.Y.S.,P-9/88-89)	Kajjali, Shu. Manahsila	Trikatu, Pippali,	<i>Matsya & Mayura Pitta</i>	Sannipataja Murchha
27	Panchamrita Rasa (R.Y.S.,P-20/ 249-261)	Kajjali, Abhraka, Loha & <i>Tamrabhasma</i>	Trikatu, Triphala, Trijataka, Motha, Kuchala, Tumberu, Renuka, Bhringaraja Chiraita, Kutaki, Jayaphala	<i>Shigrumoola & Adraka Swarasa Dashamoola, Chitraka, Kakamachi, Nirgundi, Punarnava, Mundi & Guduchi Kwatha</i>	All Types of <i>Jwara</i> , Pandu, Shoola, Mandagni, Grahani, Kapharoga, Vataroga, Gulma, Aruchi, Kasa, Shwasa
28	Agnisandipana Rasa (R.Y.S., P-43/331)	<i>Kajjali, Abhraka & Lohabhasma</i>	Jeera, Pippali, Kutha, <i>Vidanga, Chavya, Chitraka, Shunthi, Maricha, Amlavetasa, Saindhava & Sauvarchala Lavana etc.</i>	-	Ajirna
29	Somanatha Rasa (Brihat) (R.S.S.,P-416/10-16)	<i>Kajjali, Loha, Abhraka, Vanga, Rajata, Swarna & Kharparabhasma</i>	-	Ghritakumari Swarasa	Somaroga, Prameha, Bahumutrata, Mutraghata
30	Grahanikapata Rasa (R.S.S.,P-229/93-94)	<i>Kajjali, Loha & Kapardabhasma Shu. Haratala & Tankana</i>	-	Nimbu Swarasa	Grahanig, Gulma, Kshaya, Kushtha, Prameha
31	Kasturibhairava Rasa (Brihat) (R.S.S.,P-158/ 177-182)	Rasasindura, Swarna, <i>Rajata, Loha & Vangabhasma</i>	Lavanga, Jayaphala, Karpura, Trikatu	Dronapushpi & <i>Tambula patra Swarasa</i>	All types of <i>Jwara</i> , <i>Nastagarbha, Kasa, Prameha, Shwasa Arsha, Shotha, Kshaya etc</i>
32	Vatapittantaka Rasa (R.S.S.,P-137/ 67-68)	Rasasindura, Abhraka, <i>Tamra & Lohabhasma Shu. Haratala</i>	Nagarmotha	<i>Mulethi, Draksha & Guduchi kwatha, Amalaki, Shatavari & Kshirvidari Swarasa</i>	<i>Jwara, Kshaya, Daha, Trishna, Bhrama etc.</i>
33	Sannipatabhairava Rasa (B.R.5/734-742)	<i>Kajjali, Loha, Abhraka, Tamra, Naga & Swarnabhasma Shu. Haratala</i>	Triphala, Trikatu, Shu. Vatsanabha, Shu. Jayaphala, Shu. Langali, Arkadugdha	Arkamoola, Mundi, Kutha, Karvellakapatra, Kakajangha, Sonapatha, Trikatu etc.	All type of <i>Jwara</i>

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Table 2: Contd/-

Sr. No.	Formulation	Ingredient	Ingredient	Processed in	Indication
		Metals/Minerals	Herbal/Others		
34	Vatavidhwansana Rasa (B.R.26/182-188)	Kajjali, Abhraka & Kansyabhasma, Shu. Haratala	Tila	Erandataila, Nimbu Swarasa	Udararoga, Kasa, Adhyamana, Shwasa Vishuchika, Jwara Agnimandya, Shoola Amadosha, Vamana, etc.
35	Vatanashana Rasa (R.S.S.,P-368/15-17)	Rasasindura, Swarna, Vajra, Tamra & Lohabhasma, Shu. Haratala, Nilanjana, Shu. Tuthya	Samudraphena, Lavanga, Rasanjana	Snuhidugdha	Vataroga

C.S. - Charaka Samhita, B.R. - Bhaishajya Ratnavali, R.Y.S. - Rasa Yoga Sagar, R.S.S. - Rasendra Sara Samgraha

high pharmacological and therapeutic properties. There are so many formulations of this mineral is mentioned in texts of *Ayurveda* in context of treatment of diseases like *Jwara*, *Shwasa*, *Kasa*, *Kshaya*, *Prameha*, *Pandu*, *Anidra*, *Apasmara*, *Vatavyadhi* and other chronic and dreadful diseases.

Conclusion

The drugs of mineral origin are very potent and have a wide range of therapeutic efficacy in acute, chronic as well as in non curable diseases. *Swarnamakshika* is a compound of Copper, Iron and Sulphur having wide range of therapeutic efficacy.

It is frequently used in the form of *bhasma* alone or with other herbomineral drugs mainly in treatment of *Jwara*, *Pandu*, *Anidra*, *Prameha*, *Kshaya* etc., and also for *Rasayana* and *Vajikarana* purposes.

After critically analysing the above formulations, it was observed that maximum number of formulations containing *Swarnamakshika bhasma* are indicated in *Jwara* (37%), *Kasa*, *Shwasa*, *Kshaya* (34%), *Prameha* (25%), and in *Pandu* (17%).

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हिन्दी सारांश

सुवर्णमाक्षिक ताम्र, लौह व गंधक खनिज का अध्ययन

रमेशकुमार गुप्ता, विजय लक्ष्मी, एस. महापात्रा एवं सी. बी. झा

आयुर्वेदिक चिकित्सा पद्धति में रसौषधियों का महत्वपूर्ण स्थान है। जान्तव व वानस्पतिक द्रव्यों की तुलना में रसौषधियों के श्रेष्ठ होने के कारण रस वैद्यों ने प्रकृति से प्राप्त अनेक खनिजों व धातुओं का चिकित्सकीय परीक्षण किया तथा उनमें श्रेष्ठ व्याधिनाशक गुणों से युक्त खनिजों व धातुओं को चिकित्सकीय उपयोग हेतु अलग किया। स्वर्णमाक्षिक ताम्र, लौह व गंधक का एक खनिज है जो सम्यक् शोधन व मारण के पश्चात् उच्च व्याधिनाशन क्षमता से युक्त होकर ज्वर, पाण्डु, प्रमेह, श्वास-कास, कुष्ठ, अनिद्रा, अपस्मार आदि अनेक जटिल व्याधियों को नष्ट कर देता है।