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Review on purification and incineration of Maharasa varga: Unveiling the alchemical processes in Rasashastra

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Abstract

Rasashastra is a distinctive branch of Ayurveda that focuses on the pharmaceuticals of medicines derived from minerals, metals, animal products, and more, classifying drugs into various groups. Following Rasa, the next crucial category of minerals is named Maharasa. The most valuable medications are characterized within the Maharasa group. Purification and incineration are essential processes in the field of Rasashastra; Maharasa Varga undergoes these processes to enhance its therapeutic potential. Purification involves multiple stages of soaking, rinsing, and drying the raw material to eliminate impurities and toxins. Each purification step aims to refine the mineral, resulting in a purified product. Incineration, or calcination, follows purification and subjects the material to controlled high temperatures, transforming it into ash. This process further eliminates impurities and enhances the chemical and energetic properties of the substance. The resulting ash is then utilized in Ayurvedic formulations for medicinal purposes. This article provides an overview of the purification and incineration techniques employed in the preparation of Maharasa Varga, offering insights into the unique practices of Rasashastra and their significance in Ayurvedic medicine.

Keywords: Maharasa; Shodhana; Bhasma

1. Introduction

The word Rasashastra explicitly means the “Science of Mercury”. Nevertheless it is a specialized branch of Ayurveda that deals mainly with minerals or metals which are known as ‘Rasa dravyas’. They have characteristic attributes such as: quick action, effective in very small doses and extensive therapeutic utility irrespective of constitutional variation¹. These Rasa dravyas are classified into various groups such as maharasa, uparasa, sadharana, loha, ratnas etc. and one among them is maharasa varga in which Abhraka (Mica), Vaikrant (Manganese), Makshika (Copper Pyrite), Vimal (Iron Pyrite), Shilajatu (Black Bitumen) Sasyaka (Copper Sulphate), Chapal (Bismuth ore), Rasaka (Zinc ore) are included. In the text Rasahrudayantra, Maharasa are the dravyas that have properties equivalent to Parada and act similar to Parada². Rasaarnava gave first description of Maharasa Varga. Rasaarnava included hingul, vimal, sasyaka, shilajatu, chapal, rasaka, makshika and anjana. Rasaarnava did not include Abhraka and Vaikrant in Maharasa Varga instead added Hingul and Srotanjan³. Rasopnishada had not included Abhraka and Sasyaka and added parada⁴. Rasendra Choodamani had not included Chapala and Rasaka and added Rajavarta⁵. Rasa Prakash Sudhakar has included Rajaavarta in place of Chapala⁶. Rasa Padhhiti has mentioned six Maharasa and excluded Vimala and Rasaka⁷. Ayurveda Prakasha has mentioned only Parada as Maharasa and the rest all in Uprasa⁸.

Maharasa Dravya provides action such as hrudya due to its Rasayana (Rejuvenating) and yogavahi (Synergistic) properties. They have rasayana (rejuvenating), balya (Strengthening) and yogavahi (Synergistic) property. Rogahanta of Maharasa Varga dravya is Abhraka is Sarvaroghara (useful in all diseases). Vaikrant is beneficial in Rajyakshma and

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visha. Makshik is used in Pandu and Prameha. Shilajatu is used in diseases like Pandu and Rajyakshma, Vimala in Pandu, Rasaka in Prameha and Tuttha aids in Hridaruja, Visha, Arsha and Kustha⁹.

2. Materials and Method

The classification stated in one of the highly regarded text viz. Rasaratna Samuchchaya is considered which is widely accepted is used in this article. Eight drugs are taken in this study in which Shodhana and Marana procedures are compiled from different classics of Rasa Shastra.

Reviewed texts in current attempt are Ashtanga Sangreha, Rasarnava, Goraksha Samhita, Rasendra Chudamani, Rasa Prakasha Sudhakara (R.P.S), Rasopaddati, Rasa ratnakara, Rasopnishada, Rasendra sara Samgraha (R.S.S), Rasamritam, Rasahridya Tantra (R.H.T), Ayurveda Prakasha (A.P), Rasa Ratna Samuchchaya (R.R.S), Rasa Tarangini (R.T) etc.

Table 1 Classification of Maharasa Varga

Dravya	Rasarnava	Rasopanishad	Go.S ¹⁰	Ra. Chu.	Ras. Pra. Su.	R.R.S. ¹¹	Rasapaddhati	A.P.
Parad	-	+	-	-	-	-	-	+
Hingul	+	-	+	-	-	+	-	-
Vimala	+	+	+	+	+	+	-	-
Sasyak	+	+	+	+	+	+	-	-
Shilajatu	+	+	+	+	+	-	+	-
Chapal	+	+	-	-	-	+	+	-
Rasaka	+	-	+	-	+	+	-	-
Abhrak	-	-	+	+	+	-	+	-
Tuttha	-	-	-	+	-	+	+	-
Makshika	+	+	+	+	+	+	+	-
Rajavarta	-	-	-	+	+	-	-	-
Anjana	+	-	-	-	-	+	-	-
Heerak	-	-	-	-	-	-	-	-
Vaikrant	-	+	+	+	+	-	+	-
Kanta Lauha	-	-	-	-	-	-	-	-
Tankan	-	-	-	-	-	-	-	-

*(+) denotes that the Dravya is included in Maharasa Varga in that text, while (-) denotes that the Dravya is not included in Maharasa Varga in that text.

2.1. Shodhana procedure of Maharasa varga

2.1.1. Abharaka (Mica)

- **Rasendra Chudamani** - Heat it till it becomes red, then extinguish it in Kanji/ cow urine/Triphala decoction/ Cow milk.
- **RasaPrakash Sudhakar** -
A) Swedana in Sthali Yantra for 1-1 day in Kanji, Kulatha Kwatha, Takra and cow urine.
B) Heat Abhraka Patra and extinguish it in Kanji/ Triphala decoction/ cow milk/ cow urine/ Bhringaraja swarasa 7 times.
- **R.R.S** - Its leaf is heated till it becomes red and then extinguished 7 times in Kanji, Triphala Kwath and Godugdha.
- **Rasendra Saar Sangreha**¹² - Abhraka is heated till it becomes red in color and quenched in Triphala decoction, gomutra, godugdha and kanji 7-7 times.
- **A.P** - Heating Abharak Patra till it becomes red and quenching into Badri Kwath makes it purified.

- **R.T.¹³** - As per Rastarangini it is heated and extinguished 7 times in Badar Kwath.

2.1.2. Vaikrant (*Manganese or Tourmaline*)

- **Rasendra Sampradaya¹⁴**- Rasendra Sampradaya has advocated Swedana and mentioned fluid mediums for Swedana (Boiling): **Kanji amla dravyas, mutra, kulatha kwatha, kodo kwath, banana root swarasa, saji kshara, yava kshara**, Tankan and salt (all 5).
- **Rasarnava** - Powder of vaikrant should be put between Kantkari and puta is given. Then its swedana is done in horse urine for 7 days, and dried in shade.
- **Rasendra Chudamani** - Swedana in Kulatha decoction for 3 hours in Dola Yantra.
- **Rasa Prakash Sudhakar**- Swedana in Kulatha decoction for 3 hours in Dola Yantra.
- **Rasendra Chintamani¹⁵**-Rasendra Chintamani has mentioned its shodhana procedure as heating it till it becomes red hot and then extinguished 21 times in horse urine.
- **Rasendra Saar Sangraha**- It is heated and quenched in horse urine for 21 times.
- **Ayurveda Prakash** - It should be subjected to swedana in boiling Kulatha kwatha or quenched in horse urine after heating to red hot.

2.1.3. Makshika (*Pyrite*)

- **Rasendra Chudamani** – three methods are explained in this textbook
Take an iron vessel. Makshika powder is dissolved in Castor oil and Matulung Swarasa and heated for 3-4 hours. Makshik Powder is dissolved in Kadlikand water and heated for 2 hours. Makshik is heated and extinguished in triphala decoction 7 or 21 times.
- **Rasa Prakash Sudhakar** -Trituration of Makshika powder with Gomutra, Takra and Kulatha decoction 3-3 times.
- **Rasaratna Samuchchaya** - Rasaratna Samuchchaya mentioned fluid mediums for Swedana (Boiling) are eranda oil (Castor oil) and matulunga swarasa or Kadlikand swarasa and time limit is 6 hours. Makshika powder is heated and extinguished 7 times in triphala decoction.
- **Rasendra Saar Sangreha** –
A) Powder of Makshika is placed in cloth and tied and its paka is done by Dola yantra in Kalamarisha and Shali decoction.
B) Put 3 parts Swarnamakshika and 1 part Saindha namak in an iron vessel and cook it with Bijaura and jamburi Nimbu Swarasa till the iron vessel is red like embers. In this way, Makshika shodhana is done.
- **Ayurveda Prakash** –
A) Makshika is put between Surankand and its swedana is done again and again in Taila, Kanji, Takra, Gomutra and in Kadli swarasa, kulattha and Kodo decoction. It is given 3 Puta if it is associated with Kshara, Amla, Lavana, castor oil and ghrita.
B) Swarnamakshik in an iron vessel is heated with nimbu swarasa till it is nirdhuma and red in color.
- **Rasajalanidhi¹⁶** - has advocated taking 3 parts makshika powder and 1 part saindhav lavana in an iron vessel and adding matulunga or jambhiri nimbu swarasa and heating it till it becomes red.

2.1.4. Vimala (*Iron Pyrite*) –

- **Rasendra Chudamani** - Swedana in Vasa Swarasa in Dola Yantra for 3 hours.
- **Rasa Prakash Sudhakar** - Powder of Vimala is triturated with Vasa Swarasa for 3 times.
- **Rasaratna Samuchchaya** - has mentioned its shodhana by swedana in Vasa swarasa or its decoction or Jambhiri nimbu swarasa or Meshshringi swarasa.
- **Rasendra Saar Sangreha** - Swedana in Jambiri nimbu rasa and meshshringi rasa or its paka for 1 day with banana root juice.
- **Ayurveda Prakash** - Swedana for 1 day in Adusa or meshshringi and nimbu rasa. Vimala is put between Surankand and its swedana is done again and again in Taila, Kanji, Takra, Gomutra and in Kadli swarasa kulatha and kodo decoction. It is given 3 Puta if it is associated with Kshara, Amla, Lavana, castor oil and ghrita.

2.1.5. Shilajatu (*Asphaltum Panjabinum*) -

- **Rasarnava** – Shilajatu is heated with Kshara, Amla Varga and Cow urine. Another method is cooking shilajatu with cow ghrita and with ginger swarasa.
- **Ashtanga Sangreha¹⁶** – For the first time, Ashtanga Sangraha described the precise steps of Shilajatu's Shodhana, complete with the duration and volume of media. He explained how to use water for the Shodhana method, stating that Shilajatu should be dissolved in the water before being filtered and sun-dried.
- **Rasendra Chudamani** - Swedana for 1 hour in Kshara, Amla(alkaline) and guggul.

- **Rasa Prakash Sudhakar** - Add drugs of Amla varga and Kshara Varga with Shilajatu and equal amount of Gugglu. Through the method of dola yantra, heated for 2 hours.
- **Rasaratna Samuchchaya** - outlined three distinct shodhana practises
Shilajatu should be cleansed with Kshara Jala, Amla varga dravya Jala, or Gomutra in the first technique before being filtered and sun-dried.
In second method, Shilajatu should be dipped in cow milk or a decoction of Triphala or Bhringaraja Swarasa, after which it should be filtered and dried in the sun.
The third technique calls for boiling Shilajatu for three hours in Kshara Jala, Amla Dravya Jala, Kanji, and Guggulu Jala in Swedaniya Yantra, followed by filtering and sun drying.
- **Rasendra Saar Sangreha** - Shilajit is dipped in godugdha, Triphala decoction and bhringraja rasa for 1-1 day and dried in the Sun.
- **Ayurveda Prakash** - Shilajatu heated with Kshara, Amla Varga, and Cow urine or with goghrita. Another method is by dipping shilajatu in Triphala and Adraka rasa in an iron vessel.

2.1.6. Sasyaka / Tutha (Copper Sulphate or Blue Vitriol) –

- **Rasarnava** – By triturating it with Rakta Varga Dravyas (Manjistha, Laakh, Keshar, Asan etc) it is purified.
- **Rasendra Chudamani** - In the mixture of human urine, buffalo urine, cow urine and goat urine swedana is done for 9 hours.
- **Rasa Prakash Sudhakar** - Make a pottali of Sasyaka and pour buffalo urine, goat urine and cow urine in Dola yantra and its swedana should be done for 6 hours or in human urine in Dola Yantra for 6 hours.
- **Rasaratna Samuchchya** has mentioned Bhavna of Tutha with Kusumbh, Khadir, Laksha, Manjistha etc. for 7 days. Swedana in Dola Yantra for 3 hours in cow, buffalo and goat's urine.
- **Rasendra Saar Sangreha** -
A. Cat feaces is taken equal to Tutha, honey and 1/4th Tankana is taken and grounded properly and then given laghuputa for its purification.
B. Tutha 2 parts, Gandhaka 1 part both are grounded for half prahar (1.5 hours) and puta is given. After 3 puta it gets pure.
- **Rasatarangni** - As per Rasatarangni three bhavna with Nimbu Swarasa and it is Purified.

2.1.7. Chapal (Bismuth ore) –

- **Rasaratna Samuchchya** -Powder of Chapala is grounded with Jambhiri Nimbu, Bandhyakarkoti and Adraka Swarasa 7 times as advocated by Rasaratna Samuchya.

2.1.8. Rasaka / Kharpara (Zinc ore or Calamine)

- **Rasarnava** – Rasaka is heated with Nirayasa of Katukaalabu. By this method it is purified, becomes dosharahit and yellow in color.
- **Rasendra Chudamani** - Kharpara is heated and extinguished in Bijaura nimbu swarasa or human urine or sheep urine or Takra or Kanji for 7 times.
- **Rasa Prakash Sudhakar** – heated and quenched in Bijpur Nimbu Swarasa / Kanji/ Takra/ Human urine/ Sheep urine/ 7 times.
- **Rasaratna Samuchchya** –has advocated Rasaka should be heated with katualabu, it becomes yellow in color.
- **Rasendra Saar Sangreha** –
A) Kharpara is grinded with red and yellow colored flowers and then triturated with human urine, gomutra, saindhav namak and kanji made of Yava for 3 or 7 days.
B) Heat the Kharpara and quench it in nimbu swarasa.

2.2. Marana procedure of Maharasa varga dravya

2.2.1. Abharaka –

- First Dhanyaabhraka is prepared. Pure Abharaka and its one-fourth Dhaan (Shaali) are taken and kept in a bag and then tied as a Pottali. Dip the pottali in water or kanji for 3 days. After that pottali is triturated, its fine particles come out from the pores of bag. When Abhraka powder comes out of the Pottali, keep the liquid steady for some time then strain it. Dry it, use it for Marana process.
- **Rasendra Chudamani** – A. Dhanyaabhraka pellet is made, Ardhgajaputa is given 6 times.
- **B.** Take Dhanyaabhraka 1 kg and 250 gm Tankana and give trituration of Matsyakshi Swarasa, dry it. Put it in Kosthi and heat it.

- C. Abhraka powder obtained from the procedure of Dhanyabhraka is triturated with Kasamarda Swarasa and its Chakrika (pellet) is made, and dried. Its sharavasamput is done and varahputa is given.
- **Rasa Prakash Sudhakar** - Dhanyaabhraka is given 20 Puta with Tambool swarasa and Vatamulatwaka swarasa, Vasa swarasa, Brahmi swarasa, Matsyakshi and Punarnava swarasa.
- **R.S.S** - Dhanyabhraka is grounded with Arka Ksheer for one day and its pellet is made. Cover the pellet with Arka leaf, give Gajputa. Puta should be given 7 times.
- Then again ground it with Vata jata (Banyan roots) decoction for one day and make its pellet. Cover it with Arka leaf and give Gajputa 3 times.
- **A.P - A)** Put 1 part Dhanyabhraka and pure Tankana 2 parts in Andhamusha and close it. Heat it at high temperature, and when cooled down, make its powder in Kharal.
- **B)** Dhanyaabhraka (pure) and Tankana are liquified in an earthen vessel and immediately put in Milk. Then triturate it manually till the milk dries and filter the dried product with cotton cloth.

2.2.2. Vaikrant

- **Rasarnava** - Swedana of Vaikrant is performed in Kulatha and kodo decoction for 7 days with the addition of Bandhya Karkoti powder in the same quantity as Vaikrant, along with Lavana (Saindhav lavana), Kshara (Yava kshara), cow urine, tamarind, and black sesame seeds. Once it has been triturated with goat urine, dry it in the shade. Its satva is made, and it is heated in Andhamusha.
- **Rasendra Chudamani** - Pure Vaikrant powder and its equal part pure Gandhaka is taken. Triturated with Nimbu Swarasa and its chakrika(pellet) is made, and dried. Gajaputa is administered eight times as part of the sharavasamput process.
- **Rasa Prakash Sudhakar** - Pure Vaikrant powder is combined with an equal amount of pure Gandhaka powder and triturated in nimbu swarasa before being formed into pellets, dried, and used in sharavsamputa. 8 Gajaputa is given.
- **RRS** - The same quantity of purified Vaikrant and Gandhaka is obtained, triturated with nimbu swarasa, and then eight Gajaputa are administered. The bhasma that has been made is red in colour. Vaikrant can also be heated, repeatedly doused in horse urine, triturated with more horse urine, and then administered puta till its bhasma is created. These two methods are given by Rasaratna Samuchchaya.
- **A.P** - Vaikrant is coated with Gandhaka (Triturated with Nimbu Swarasa) and then given 8 puta.
- **R.S.S** - Indraravuni's panchang is powdered. A ball is created from its kalka. Vaikrant is placed within the ball, which is then heated in the Musha Yantra. Take it outside, form a ball once more, and heat it. This process should be repeated till the bhasma is ready.

2.2.3. Makshika

- **Rasarnava** - Powdered Makshika is heated along with Tankana and Kankustha triturated with Human milk, Snuhi and Arka.
- **Rasendra Chudamani** - Mix equal parts of pure Gandhak and pure Makshika powder. It is triturated with Matulunga Swarasa before being dried and converted into a pellet. Gajaputa is administered eight times as part of the sharavasamput process. Castor oil, cow ghrita, and Matulunga Nimbu swarasa should be used to triturate Makshika powder at a high temperature. It appears to be Swarna Gairik.
- **Rasa Prakash Sudhakar** - In Pure Makshika powder add pure Gandhaka and triturate it with Bijaura Nimbu Swarasa. Its Chakrika should be made dried, put in sharavsamputa and given Varah Puta 5 times.
- **R.R.S** –
A) In eranda oil, cow ghrita or matulunga swarasa Makshika is triturated and then it is placed in Kharpara, heated in high temperature. After heating Makshika color becomes like Swarnagairika red in color.
B) 4 parts Swarnamakshika and 1part Gandhaka are grounded together and triturated with castor oil. Its pellet are made, kept in sharavsamputa and given Gajaputa. Bhasma is red in color.
- **Rasa Tarangni** - Gandhaka is taken in same quantity as Makshika and given Bhavna with Nimbu swarasa. Then its pellet is made and dried. Its bhasma is prepared by giving 5 puta. Second method is the makshika which is purified by nimbu swarasa method and is again triturated in nimbu swarasa and pellet is made, dried and then 10 puta is given. Its bhasma color is like red colored lotus.

2.2.4. Vimal

- **Rasendra Chudamani** - Take equal amount of Vimala powder and Gandhaka powder, bhawna of lakuch twak swarasa for 3-4 days. Put it in sharava samputa and give Gajaputa or Vrahaputa. Give 10- 10 times bhawana and then give puta.
- **Rasa Prakash Sudhakar** - Add an equal quantity of Pure Gandhaka in Pure Vimala and triturated with Nimbu swarasa, its chakrika is made, and dried. Its sharavasamputa is done and gajputa is given 10 times.
- **R.R.S – A.** Purified Vimala powder is taken and its equal quantity of Gandhaka is taken and given bhavna of Lakuch Swarasa. Its Chakrika is made, dried given 10 gajaputa, its bhasma is made.
- **B.** Pure hartala and Pure gandhaka is taken 1/8th part of Makshik and grounded with Nimbu Rasa. After 10 puta its bhasma is formed.

2.2.5. Shilajatu

- **Rasarnava** – Shilajatu powder is made, its bolus is prepared with Dhanyamla, Upvisha and Visha. Like Chapala its incineration is done.
- **Rasendra Chudamani** - Take pure Shilajatu, pure gandhaka and pure Hartala, it should be grounded with Nimbu Swarasa, dried and kapot puta is given of 8 cowdung.
- **Rasa Prakash Sudhakar** – A) Pure Shilajatu 1 part and Pure Manashila 1 part triturated with Bijaura Nimbu Swarasa, chakrika is made, dried and after its sharavsamput heat of 8 cowdung is given.
- B) Pure Shilajatu 1 part, Pure Manashila 1 part and Pure Gandhaka 1 part is triturated with Bijaura Nimbu Swarasa, chakrika is made, dried and after its sharavsamput heat of 8 cowdung is given.
- C) Pure Shilajatu 1 part and Pure Hartala 1 part triturated with Bijaura Nimbu Swarasa, chakrika is made, dried and after its sharavsamput heat of 8 cowdung is given.
- **R.R.S** - The same amount of pure Shilajatu, pure Gandhaka, and pure Hartala is combined and triturated with matulunga swarasa and puta of eight cowdung is given.
- **Ayurveda Prakash** - Puta of Manashila, Gandhaka, Hartala, and Jambiri Nimbu rasa is given to Shilajatu.

2.2.6. Sasyaka

- **Rasarnava** - In pure Sasyaka 1/4th part Tankana is mixed and put in Karanja Taila for 1 day. In between Andhamusha sasyaka and 3 kokila are placed and heated.
- **Rasendra Chudamani** - Equal quantity of pure Sasyaka, pure Gandhaka and pure Tankana are taken in Khalva Yantra. Bhavna of Lakuchtwak Swarasa is given, pellet is made, dried, subjected to kukkut puta 10 times.
- **RasaPrakash Sudhakar** - Equal parts of pure Sasyaka, pure Gandhaka, pure Tankana should be taken in a Kharala and grounded with Lakucha Swarasa, plated, dried and sharavsamput is done and 7 times Kukkutputa is given.
- **R.R.S** - Equal quantity of pure tutha, pure gandhaka and pure Tankana is taken and with Lakucha swarasa bhawna is given. Enclosed in Musha, Kukkut Puta heat is given. Tutha bhasma is prepared by 3 puta.
- **R.S.S** - Equal quantity of Tutha, Cat feaces and honey is taken, and Tankana is taken one fourth part of Tutha and grounded together and subjected to 3 Puta.
- **Ayurveda Prakash** - Along with Tutha Gandhaka and Tankana is triturated with Lakuch Swarasa and putted in Andhamusha. Kukkutputa (2-3) is given. Bhasma is prepared.

2.2.7. Chapala

- **Rasarnava** – Chapal incineration is done through Putapaka method with Girimastak (Shora).
- **RRS** - In Pure Chapala add equal quantity of Girisindur / Rasasindur / Gandhaka or Nirgundi Swarasa bhavna , put it in Baluka Yantra , red color bhasma is made.

2.2.8. Rasaka

- **Rasarnava** – Rasaka powder should be tied to a piece of cloth and placed in a woman's urine for seven days before being triturated with rakta varga, Pita varga's flower, and Pita varga's leaf juice. Rasaka is grounded with the help of the dravyas Kshara Varga, Sneha Varga, and Amla Varga before being heated in the Musha Yantra with the help of Unn, Laakh, Haridra, Vibhatki, earthworm, Grihadhuma, and Tankana. The color of Satva is similar to that of Vajra Satva.
- Karvellak Rasaka heated till it turns red and extinguished in Bijpura Nimbu Swarasa 7 times / Kanji or Takra or Human urine or Sheep urine 7 times.
- **Rasendra Chudamani** - Put rasaka in iron vessel, heat it till it liquefies. Add 1/8th Hartala in it, ground it. After some time its Bhasma is formed.

- **Rasa Prakash Sudhakar** – Take pure Rasaka powder 1 part and one-fourth part pure Manahshila, Haridra powder, Triphala powder, Grihadhuma, Saindhav, Bhallatak and Tankan and grind the mixture well. Make a ball of it and put it in Vrintaka Musha and put another musha on it. It is heated till white and blue fumes don't come. It is taken out from musha and powdered when cooled down.
- **R.R.S**-Pure Kharpara and pure Parada is taken in equal amount and triturated together before being heated in Baluka Yantra for 1 day. Bhasma prepared is red in color.
- **R.S.S** - Powder of pure Kharpara is grounded with equal quantity of pure Parada and fill it in mud smeared bottle and heat it in Baluka Yantra for one day. In this way Bhasma is prepared.

Table 2 Therapeutic uses of Maharasa Varga¹⁸

Maharasa varga	Dose	Uses	Important formulations
Abharaka	2 Ratti	Pandu, Grahani, Shoola, Kustha, Jwara, Swasa, Prameha, Aruchi, Udararoga	Arogyavardhini Vati, Gagan Parpati, Agnikumar Rasa, Yogendra Rasa
Vaikrant	1/24 to 1/11 Ratti	Varnya, Rasayana, Napunsaktanashak	Kaantrasayana, Vasantkusmakar Rasa, Ratnaprabha Vati, Suchikabharan Rasa
Makshika	½ Ratti to 2 Ratti	Prameha, Rajyakshma, Mutrakricha, Shotha, Masurika, Kasa, Garbhini Jwara	Ratnagarbha Pottali, Chandraprabha Vati, Jaimangal Rasa, Panchamrita Parpati
Vimala	1-2 Ratti	Jwara, Shotha, Pandu, Prameha, Aruchi, Visha, Kustha, Rajyakshma, Sangrehani, Shoola	Kshayakesari Rasa, Rasendrachudamanirasa, Madansanjivanrasa, Shighraprabhavrasa
Shilajatu	2 to 8 Ratti	Mutrakricha, Ashthalika, Rajyakshma, Prameha, Hridya Roga, Ashmari, Kumbhakamla, Shorakayajwara (Scarlet fever)	Arogyavardhini Vati, Chandraprabha Vati, Shivagutika, Lankeshwara Rasa
Sasyaka	15-30 mg	Krimi (helminthiasis/worm infestation); Prameha (increased frequency and turbidity of urine); Medoroga (obesity); Shoola (pain/colic); Kustha (diseases of the skin); Śwasa (Asthma); Amlapitta (hyperacidity); Tvak roga (skin disease); Śvitra (Leucoderma /Vitiligo); Arsha (piles); Vrana (ulcer/wound); Netra roga (diseases of eyes); Dushta Vrana (non-healing ulcer)	Jatyadi Taila. Kanaksundarrasa, Jatyadi Ghrita, Rasendra Gutika, Mahamrityunjaya Rasa
Chapala	-	Prameha, Netra Roga, Kshaya Roga,	-
Rasaka	½ ratti to 2 ratti	Mutrakricha, Kasa, Swasa, Kshaya Kasa, Pandu, Shotha, Pradara, Jeernajwara, Agnimandya.	Somnath Rasa, Vasantmalti Rasa, Chintamani Rasa, Kasturibhairav Rasa

3. Discussion

In the field of Rasashastra, which is an ancient Indian alchemical and pharmaceutical tradition, there is a group of metal and minerals called "Maharasa Varga." Maharasa Varga refers to a specific group of minerals or compounds used in Ayurvedic medicine and alchemical practices. The purification and incineration processes play crucial roles in preparing these substances for therapeutic use.

Purification is a fundamental step in Rasashastra to eliminate impurities and enhance the potency of minerals. The purification process typically involves several stages, including soaking the raw material in various liquids, such as

cow's urine, milk, or herbal decoctions, followed by rinsing, drying, and repeating the procedure multiple times. Each purification step aims to eliminate toxins, heavy metals, and unwanted substances from the mineral, resulting in a refined and purified product.

After purification, the next step is incineration, also known as calcination. This process involves subjecting the purified material to high temperatures, often in a controlled environment, such as a furnace or a specific apparatus called a puta. The incineration process transforms the purified material into ash, which is considered the final form of the Maharasa Varga.

Incineration serves multiple purposes. Firstly, it further eliminates any remaining impurities and toxins from the substance. Secondly, it enhances the mineral's chemical and energetic properties by altering its composition and structure. The specific temperature, duration, and other factors during incineration are carefully controlled and determined based on the characteristics of the substance being processed.

The resulting ash from the incineration process is then used in various Ayurvedic formulations, known as Rasayanas, for medicinal purposes. These formulations can be further processed and combined with other ingredients to create specific medicines or rejuvenating therapies in Ayurveda.

4. Conclusion

This review article is an attempt to compile the incineration and purification methods of Maharasa Varga given in some of the Ayurvedic textbooks. All the dravyas in Maharasa varga are used for therapeutic purposes as per their availability and chemical composition. This will help the researchers to find all the Shodhana and Marana procedures explained in various text books in one place.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

References

- [1] Savrikar, S., & Ravishankar, B. (2011). Introduction to 'rasashastra'-the iatrochemistry of ayurveda. African Journal of Traditional, Complementary and Alternative Medicines, 8(5S).
- [2] Bhagwat, B. R., Kurkute, B. R., Shinde, B. T., & Tapare, S. K. (2017). Classification of Rasadravyas in Rasashastra. World J Pharm Res, 6, 792-802.
- [3] Tripathi I. (2001) Rasarnava, Edited by S. K. Dixit, Krishna Das Academy Varanasi, Ed 4th
- [4] Deshpande J. V. (2022). Rasopnishada. Bhandarkar Research Oriental Institute Pune.
- [5] Acharya S., (2017). Rasendra Chudamani, Commented by Sidhi Nandan Mishra, Chaukhambha Sanskrit Sansthan, Varanasi.
- [6] Bhatt Y. (2013). Rasa Prakash Sudhakar, Commented by Sidhi Nandan Mishra, Chaukhambha Sanskrit Sansthan, Varanasi.
- [7] Acharya Bindhu, (2005) Rasapadatti, edited by Siddhi Nandan Mishra, Varanasi, Choukhambha Publications.
- [8] Acharya M. (2014)., Ayurveda Prakash, Commented by Gulraj Sharma Mishra, Chaukhambha Bharti Academy.
- [9] Ambika, S., Semwal, N., & Hussain, G. (2021). A REVIEW ON MAHARASA DRAVYA AS HRUDYA.
- [10] Vishnuswaroop, S. (2014). Goraksha Samhita
- [11] Acharya V. Rasa Ratna Samuccya commented by Prof. Datatreya Anant Kulkarni, IIRD Ed. Meharchand Laxamdas, New Delhi.
- [12] Krishna G. (1981). Rasendrasarasangraha, Ed. Pandit Brahama Shankara Mishra, Edn 6th, Varanasi, Chaukhambha Amara bharti prakashana.
- [13] Sharma S. (1979). Rasa Tarangini Commented by Kashi Nath Sastri, Motilal Banarasidas, Varanasi.

- [14] Jha C. (2015) Ayurvediya Rasashastra. Varanasi: Chaukhamba Orientalia.
- [15] Chintamani, R. (2000). Shri. Dundukanath with 'Mani Prabha'Sanskrit commentary of Shri. Maniram Sharma, Shri. Dhanwantari Mandir, Ratangarh (Raj.)
- [16] Vagbhata, (1988) Ashtanga Sangraha, Commentry by Lalachandrashastri Vaidya. Uttara tantra Rasayana vidhi, Bidyantha Ayurveda Bhavan Private Limited, Kolkatta.
- [17] Bhudeb Mukerjee, (1998) RasaJalaNidhi. Varanasi Chaukhambha Publishers.
- [18] Mishra Sidhinandan. (2015) Ayurvediya Rasashastra. Chaukhamba Orientalia Varanasi.