

A CONCEPTUAL REVIEW ON RASADRAVYA AKIKA (AGATE) – AN AYURVEDIC PERSPECTIVE

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ABSTRACT

Rasashastra is a part of *Ayurveda* which mainly deals with Uparasas Maharasas and Ratnoparatnas. *Akika* grouped under the Uparatna varga and sikta varga. There was no references were found for akika in vedas and samhitas, but it is recorded as being used at the time of sindhu civilization because it has been unearthed in Harappa Mohenjodaro.^[1] Along with akika various other dravyas like rajavarta souviranjana, hingula, spatika etc were found at the time. It is having properties like sheeta (cold), hridya (cardio protective) and hridya prabhava^[2] (special action) the bhasma of Akika and pishti are indicated in palpitation and cardiac related diseases and in the field of Ayurveda practice it is a leading remedies for the same Hence the present article aims to review regarding origin, purification, marana and pishtikarana of Akika from Ayurveda literary. Akika is used in several diseases like hridya rogas, vatapitta vikara, unmade, raktapradara, urakshata etc.

KEYWORDS: Akika, Ayurveda, Bhasma, Pisti.

INTRODUCTION

Ayurveda has been known as the science of herbal medicines. However along with herbs our ancient scholars were also well aware of the medicinal value of metals, minerals, aquatic products and gems etc which are found in nature. Rasashastra is one of the very important

offshoots of this Ayurveda which mainly deals with above mentioned substances. Gems or Ratnoparatnas are also one among them. As the priority of Rasashastra was to attain a body (Deha vada), Siddhacharyas of Rasashastra had used the gems for the purpose of inducing the longevity of life in a human body. Akika is one of the gem grouped under the uparatna varga and has sheetal (cold), hridya guna (cardio protective property). It is having composition of silicon and oxygen with an infinite three-dimensional polymeric structure. In English it is named as Agate. There are more than 15 varieties present in Agate, among them white Agate is considered as standard by API. The typical horizontal bands are diagnostic criteria for Akika.

Vargeekarana

Acharya siddabheshaja manimalakara has mentioned under paradaadi varga^[3] where as Rasadarpanakara^[4] and Rasamritakara^[5] mentioned under uparatna varga.^[6] Acharya Ratna pradeepakara specified it under sapatika varga ratna.

Synonyms - Different synonyms are found in classics based on its guna, karma and swaroopa like Varna (colour): Rudhira^[7], Raktapashana, Raktashma, Raktabham, Shona.^[8] Karma (action): Hridaya, Pashanahridaya^[9], Hridayopalam.^[8] Swaroopa(appearance): Puteeka^[7], Paalyashma, Hakeeka, Paandha.^[10]

Vernacular names of Akika^[11]

Sanskrit - Akika

Kannada – Akika

Marathi - Akika.

Hindi - Akika Pharsi

Akika Arab - Akika

Punjabi - Manka

Urdu - Aqeeq (N.F.U.M.)

English - Agate (chalcedony)

Types - Different opinions are there regarding the classification of Akika, some are classified based on color and some are based on appearance.

REFERENCE	TYPES
Rasadarpana ^[7]	Shweta, Peeta, Hareeta, Krishna, Rakta
Dravya guna vidhana ^[12]	Shweta, Peeta, Krishna, Neela, Rakta
Ayurveda sara sangraha ^[13]	Shweta, Peeta, Neela, Rakta
Prarambika rasa parichaya ^[14]	Shweta, Peeta, Krishna, Neela, Hareeta
Bharatiya Rasashastra ^[15]	Krishna, Neela, Rakta
Rasendra sambava ^[16]	Shweta, Peeta, Rakta, Shyama
Unani Dravyaguna shastra ^[18]	Shweta, Peeta, Rakta

Grahyalaxanas

Expect Prarambhikara Rasaparichayakara all acharyas opined that rakta varna akika is shresta but according to API the white color agate with parallel bands have more therapeutic value.

Rasendra Sambhava - Shone varna is uttama.^[8]

Parambhika rasa parichaya -Shweta varnayukta (white colored) Akika is considered as Prashasta^[14]

Rasabindu –Shlakshna (shiny) and Rakta varna yukta is considered as prashasta.^[15]

API -White colored, bands of Akika are typically parallel to each other.^[17]

Rasamrita- Kathina (hard), Rakta (blood coloured) or Yakrut varnayukta.^[18]

Unani dravya gunadarsha -Shiny, Kathina, and rakta varnayukta(blood colored).^[16]

GUNA ^[19]	KARMA
Rasa	Kashaya, Madhura
Guna	Ruksha, Soumya
Veerya	Sheeta
Vipaka	Madhura
Prabhava	Hridya
Doshagnata	Pittashamaka

MODERN REVIEW

Origin - Generally akika occurs in pure form it occurs all over the earth's crust in igneous as well as metamorphic rocks. Whenever cavities are developed silica will get deposit and material becomes akika.

Agate is a common semiprecious Silica mineral that has long been used as a gem and Chalcedony, which is a form of 'Quartz'. It is a crypto crystalline variety of the mineral Quartz. It makes up about 12% of the earth's crust²⁴. The name Agate is from an old locality on the 'Achate' river in south western Sicily.

It acts against fever. Parisian magicians used Agate is believed to cure the stings of Scorpions & the bites of snakes, soothe the mind, prevents contagion. It cures insomnia. Along with

this, varieties of Agates are used to prepare ornaments like necklaces, rings, bead etc. In ancient era Agate was used for making weapons.

Shodhana

After reviewing all the available classical literatures about Akika, it is found that there are total two methods were mentioned for the shodhana (Purification), one is nirvapa (heating and quenching) method and another one is swedana (boiling) method but the number of nirvapa, nirvapa media & swedana media are differ with different acharyas, which are tabulated in Table.

Reference	Drava dravya	Nirvapa
R.D ^[5]	Gulab jala	21 times
R.D ^[5]	Triphala kwatha	6 times
A.S.S ^[13]	Gulab jala	21 times
P.R.P ^[14]	Triphala kwatha	21 times
A.P.I ^[17]	Gulaba jala/dughda	21 times
R.S ^[20]	Shatapatrikeer	7 times
R.B ^[21]	Godugdha/arjuna swarasa	21 times
B.V ^[22]	Ketaki arka/neeli utpala	Till it becomes brittle
R.T.S.S ^[23]	Gulab jala/dugdha/veda mushka arka	21 times
B.R ^[24]	Gulab jala/ketaki arka	20 times
RAS ^[25]	Godugdha	21-31 times
R.V ^[26]	Ketaki arka/veda mushka arka	15-20 times /till it becomes brittle
R.P ^[27]	Arka kevada/veda mushka arka	15-20 times /till it becomes brittle

Pharmaceutical Preparation of Akika Bhasma

Various methods have been told in Rasagrantha's about Akika marana.

1. Finely powdered Shodita Akika should subject to bhavana (Levigation) with kumari swarasa (aloe vere) / gulab arka. The paste thus obtained should make into chakrikas (pellate) & place in sharava samputa and after sandhi bhandhana subject to agni^[5] (heat).
2. Bhavana should carry out with kumari swarasa to shodhita akika churna, after preparing chakrikas allow to dry them, then subject to three gaja putas, thus obtained bhasma should collect and again subject to bhavana with Godugdha and give one more Gajaputa.^[13]
3. Shuddha Akika churna subject to the bhavana with Gulaba arka or Kumari swarasa and do Paka in sharava samputa. Here acharya has not mentioned regarding the paka method.^[22]

4. Mardana of Akika churna is to be done with kumari swarasa, Chakrikas should be prepare and subject to agni.^[28]
5. Gulab arka or kumari swarasa bhavana should give to shodhita akika followed by gaja puta. After swanga sheeta, the whole procedure should repeat for three more times but during this time use Godugdha as a bhavana dravya instead of kumari swarasa followed by give gaja puta.^[29]
6. Rakta Akika should be place inside the Indrayava phala and cover with mruttika lipta vastra and dry it. After drying this should be keep on nirdhuma agni by using vanopalas and after swangasheeta collect the product and repeat the procedure for 101 times for proper bhasma.^[30]
7. The bhasma should prepare by triturating akika churna with Kumari swarasa, Ketaki rasa, Jalapippali swarasa and with Rambha swarasa and then it should be subject to 7 Kukkuta Puta.^[31]
8. Shodhita Akika should be placed in between Kamalagattagiri (Nelumbo nerufera) churna and prepare a samputa and give puta by 20 ser (18.836kgs) vanopalas(cow dung cakes), repeat the whole process for two more times.^[32]
9. Keep the Akika in bamboo or sevanti phala kalka, this should be placed in sharava samputa and subjected to gajaputa, thus obtained product should triturate with Ketaki arka and stored it.^[32]
10. Ketaki swarasa nirvapita Akika powder should place in taruni and give puta by 25ser vanotpalas 44 or else shodhita Akika should be place between the babbula patra / pudeena patra, prepare samputa and subjected to puta by 10 vanopalas.^[32]
11. Shodhita Akika should place in between the Kalka of Rita phala twak (Sapindus Mukoross), or Suhanjana twak (Moringa olifera) or Babula patra(Acacia Arabica) or Sirisha patra (Albezia Odoratissima) or Nilophara (Nymphaea alba) either in single kalka or mixed and prepare samputa and subjected to agni by 25 ser upalas.^[32]
12. Bhavana to the powder of shodhita Akika with Kumari swarasa or Godugdha and subjected to gaja puta.^[32]

Pisti^[33]

Pistis are novel dosage forms of rasa dravyas. Its use is inevitable in Ayurveda pharmaceuticals. Method of preparation is simple. The concept of bhavana can be adopted here making the drug in to a smallere particle size and it incorporates the property of bhavana dravya utilizes for the purpose. The particle size is small as that of bhasmas. For example

Akika pisti is considered more soumya than the bhasma.

Preparation of Akika Pishti

Akika Pishti should be prepared by bhavana method in khalwa yantra with suitable drava dravya for specific period of time. It is a common method has been explained in various Rasagranthas but the opinion regarding bhavana media, time and days for each bhavana and numbers of bhavana are differs. Details are given below.

Different Bhavana Media and Duration of Bhavana

- 1 R.D.^[5] Gulab or ketaki or Chandana arka Duration is not specified.
- 2 P.R.P.^[14] Gulab or ketaki or Chandana arka 21days after that should dry under sunlight
- 3 R.B.^[21] Gulab Jala (samanya pishtivat) 7 days
- 4 R.T.S.S.^[29] Gulab jala 7 days
- 5 B.V.^[32] Gulab jala Duration is not specified
- 6 A.S.S.^[34] Gulab jala 10 to 12 days after that dry it under sunlight,
- 7 R.T.S.S.^[35] Gulab jala 10 days
- 8 AFI^[36] Kumari swarasa, Ketaki swarasa, Jalapippali Swarasa, Kadali Kanda Rasa. Duration is not specified, after completion dry it under sunlight. (R.D-Rasadarpana, P.R.P- Prarambhika rasa parichaya, R.B-Rasa bindu, R.T.S.S-Rasa tantra sara va sidhdha yoga sangraha, B.V-Bhasma vigynana, A.S.S- Ayurveda sara sangraha, AFI-Ayurvedic Formulary of India.)

Matra and Anupana of Akika Bhasma and Pishti

Reference	Bhasma Matra	Pishti Matra	Anupana
AMMA ^[37]	1-4 ratti		
RD ^[5]	2-4 ratti		
PRP ^[14]	2-4 Ratti	2-4 Ratti	Ratti Madhu, Dugdha & Navaneeta
RB ^[31]	2-4 Ratti	2-4 Ratti	Not mentioned
RTSS ^[29]	2-3 Ratti	1-3 Ratti	Madhu, Navaneeta
BV ^[32]	1-4 Ratti	Not mentione	Navaneeta and Amalaki swarasa
ASS ^[34]	1-3 Ratti	Not Mentioned	Madhu, Navaneeta
BV ^[38]	½-1 Ratti	½ -1 Ratti	Not mentioned
AFI ^[39]	Not mentioned	125-250mg	Madhu, ashvagandha swarasa, ardraka swarasa
RM ^[40]	2-4 Ratti	4 Ratti	Apple juice
BPRK ^[41]	Not mentioned	2-4 Ratti	Madhu
UDG ^[16]	1-4 Ratti	4-12 Ratti	Sharbat
USY ^[42]	2 Ratti-2 Masha	2Ratti-2Masha	Kushmand swarasa

Apakva Akika Bhasma sevanajanya Dosha

It is ahitakara to Vrakka(kidney) and Kantha(throat) if taken without proper preparation.^[16]

Upashaya: Dosha nivarana is by intake of kateera beeja with Kushmand Beeja/ kadudaka beeja. Pratinidhi dravya: Abhraka (Mica) and Pravala shakh.^[16]

Matra: 1g-2g^[16]

DISCUSSION

After extensive probing into Literature it can be revealed that Akika is a well-known Uparatna (Gem) to the people across the world from the time immemorial. It was being used in ornamental as well as astrological purposes since ages. But the references of its medicinal application could be found only from Rasakala. In the field of Rasashastra previously the uparatnas like Akika were being used in different Parada Karmas, hence it is mentioned under Paradadi varga. The current source available in the name of Akika seems to be Agate (silicon di- oxide). Agate is a common semiprecious Silica mineral that has long been used as a gem and Chalcedony', which is a form of 'Quartz' and chemical composition of SiO₂. It is a cryptocrystalline variety of the mineral Quartz. It makes up about 12% of the earth's crust. As Akika bhasma contains Silicon Dioxide, it acts on heart, brain, liver and spleen so it is used in diseases of these organs. It also helps in bleeding disorders.

CONCLUSION

Akika is having kashaya and madhura rasa, sheeta veerya, madhura vipaka and gunas like pitta shamaka, rakta sthambaka, hridya, netrya and hridya prabhava are mentioned in Ayurvedic literatures based on which many pharmaceutical companies are preparing Akika pishti as well as bhasma extensively to serve mankind.

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