

DHATU PRAKARANAM

Dr Raghuv

Dept of Rasashastra

KVG Ayurvedic Medical College Sullia

ayuraghu@rediffmail.com

INTRODUCTION

- Dhatu/loha shabda utpatti: derived from 'luh' dhatu .
- Nirukti :-
वल्लिपल्लितखाल्लित्यकाश्याबल्यजरामयान् ।
निवार्य दधते देहं नृणां तद्धातवो मताः ॥ (आ.प्र.)

History

VEDA KALA	SAMHITA KALA	RASASHASTRA KALA
<p>Atharvaveda: 4 (S.R.T.L.)</p> <p>Yajurveda : 6 (S.R.T.L.N.V.)</p> <p>Yagnyavalkya smruti : 6</p> <p>Manusmruti : 8 (S.R.T.L.N.V.KA.RITI.)</p>	<p>Su & Cha: 8 (S.R.T.L.N.V.KA.PITTALA)</p>	<p>Rasarnava: 6 (S.R.T.L.N.V.)</p> <p>RHT : 9 (S.R.T. Tixna loha, kanta loha, Abhraka satva, pittala, naga, vanga)</p> <p>R.chu: 9 (Shu, Puti, mishra)</p> <p>RRS: 9 (Shu, Puti, mishra)</p> <p>AP: acc to rasagrantha mooladhatu are 6, AP included Yashada as 7th dhatu-15th cen onwards-in pooti loha</p> <p>Sha.sam: 7 (S.R.T.L.N.V.Pi.) Upadhatu: 7 (maxika, tutta, abhraka, neelanjan, shila, taala, rasaka)</p>

Classification

- Shuddha loha → Swarna, Rajata, Tamra, Loha
- Pooti loha → Naga, Vanga, Yashada
- Mishra loha → Pittala, Kamsya, Vartaloha

Mythological story behind utpatti of Dhatu

SL.NO.	DHATU	UTPATTI
01	Swarna	Agni
02	Rajata	Chandrama / Shiva
03	Tamra	Surya
04	Loha	Yama / Lohasura
05	Naga	Vaasuki naga
06	Vanga	Indra

Relation between Dhatu & Graha

SL.NO.	DHATU	GRAHA
01	Taamra	Surya
02	Rajata	Chandra
03	Pittala	Mangala
04	Naga	Budha
05	Swarna	Guru
06	Vanga	Shukra
07	Teekshna loha	Shani
08	Kamsya	Raahu
09	Kanta loha	Ketu

Dhatu varna, Dhatu Bhasma Varna & Jwala Pareeksha

SL.NO.	DHATU	VARNA	BHASMA VARNA	JWALA
01	Swarna	Peeta	Champaka Varna	Peeta
02	Rajata	Shweta	Krishna	Shweta
03	Tamra	Rakta	Krishna / Mayura kantha sadrusha	Neela
04	Loha	Krishna	Pakwa Jambu phala sadrusha	Krishna
05	Naga	Krishna	Krishna	Dhumra
06	Vanga	Shweta	Shweta	Kapota
07	Yashada	Shweta	Pandura / shweta	---
08	Pittala	Peeta	Krishna	---
09	Kamsya	Shweta	Krishna	---

SL.NO.	DHATU	ENG	LAT/SYMBOL	SP.GR.	B.P.	M.P
01	Swarna	Gold	Aurum (Au)	19.4	1800°C	1065° C
02	Rajata	Silver	Argentium (Ag)	10.5	1955°C	960° C
03	Tamra	Copper	Cuprum (Cu)	9.7	2310°C	1057° C
04	Loha	Iron	Ferrum (Fe)	7.7	3000°C	1520° C
05	Naga	Lead	Plumbum (Pb)	11.4	1525°C	325° C
06	Vanga	Tin	Stannum (Sn)	7.28	2702°C	233° C
07	Yashada	Zinc	Zincum (Zn)	7.1	980° C	410° C

Grahya Lakshana

SL.NO	DHATU	GRAHYA LAKSHANA
01	Swarna	Daahe Raktam Sitam chede Nikashe Kumkumprabham Guru Snigdham Mrudu Swacham Nirdalam Raktapeetakam Hema Shodashavarnaadhyam shasyate dehalohayo: (A.K. 2/12)
02	Rajata	Ghanam swacham guru snigdham daahe chede sitam mrudu Varnaadhyam Chandravat swacham Dahe Chede Samaprabham shankhabham masrunam sphotarहितam rajatam shubham (A.K.Kri.3/7)
03	Tamra	Susnigham Mrudulam Shonam Ghanaghatakshamam Guru: Nirvikaram Gunashreshtam Tamram Nepalamuchyate (R.R.S.5/44)
04	Loha	Shanodwaantam Saarachurnam griheetam Chumbakaashmana Shastrakrillohakaaraanaam Grihe tad Bahulam Bhavet (A.P. 3/237)
05	Naga	Drutadravam Mahabhaaram Chede Krishnasamujwalam Pootigandham Bahi: krishnam Shudham Seesamato anyatha (R.R.S.5/170)
06	Vanga	Dhavalam Mrudulam Snigdham Drutadravam Sagouravam Ni:Shabdham Khuravangam Syanmishrakam Shyaamshubhrakam (R.R.S. 5/154)
07	Yashada	Chede Samujwalam Snigdham Mrudulam Nirmalam Tatha Drutadravam Mahabhaaram Yashadam Grahyaamuchyate (R.T.19/95)
08	Pittala	Gurvee Mrudvee Cha Peetaabha Saaraangi Taadanakshamaa Susnighda Masrunaangee Cha Reetiretaadrushee Shubha (R.R.S. 5/ 193-194)
09	Kamsya	Teekshnashabdham Mrudusnigdhameshat Shyaamalashubhrakam Nirmalam Daaharaktam Cha Shodhaa Kaamsyam Prashasyate (R.R.S.5/206)

SL.NO	DHATU	TYPES	SYNONYMS	AVAILABILITY
01	Swarna	5 prakrita, sahaja, agnisambhava, khanija, rasendravedhaja	Hiranya, kanchana, manohara, haataka, kanaka, mangalyaka	In India Kolar, anantapur, bihar, Australia, America, South Africa, Mexico, China
02	Rajata	Sahaja, khanija, Kritrima	Roupya, taara, chandraloha, chandrahaasa, shubhraka	Mexico, Russia, Australia, Africa, Japan, Germany
03	Tamra	Nepalaka, Mlecha	Shulba, suryaloha, raviloha, bhaskara, arka, ravipriya, lohityasa	America, Africa, Japan, Australia, in India Bihar, Rajasthan
04	Loha	Munda, teekshna, kantaloha	Ayas, shastraloha, saaraloha, teekshnaka	In India south Bihar, Hajaribhag, Bangal, Orissa, Rajasthan, AP, MP
05	Naga	Kumara Samala	Seesaka, seesa, bhujanga, phani, kuranga, Aasheevisha, vabhra	In India Kashmir, Punjab, Rajasthan, TN, Bihar, Australia, America
06	Vanga	Khuraka Mishraka	Rangaka, Shukraloha, Trapu, Kuroopya, Trapusha, Trapusa	In India Bihar. Berma, Australia, Malaysia, China, S.Africa
07	Yashada	----	Jasad, Yasad, Reetihetu, , Kharparaja, Rangasankaasha	In India Kashmir, Punjab, Rajasthan, TN, Bihar, MP, UP
08	Pittala	Reetika Kaakatundi	Reetika, Kapiloha, Kapila, Pingala, Peetaka	----
09	Kamsya	Pushpa Tailika	Tamratrapuja, Ghosha, Ghoshaka, Deeptaloha, Vahniloha, Kamsaka	----
10	Vartaloha	----	Panchaloha, Pancharasa, Bharta, Vartula	----

Samanya shodhana

Taile Takre Gavam Mutre Aaranale Kulathaje |
Kramannishechyet Taptam drave drave tu
Saptadha |
Swarnaadilohapatraanaam Shudhiresha
Prashasyate ||

-RRS 5/13

Vishesa Shodhana

SL.NO	DHATU	VISHESA SHODHANA METHOD
01	Swarna	Swarna patra → smeared with saindhava+Swarnagairika → dried → Sharavasamputa → 1 ½ hour agni.
02	Rajata	Rajata patra → 3 times Nirvapa in Agastya patra swarasa
03	Tamra	Tamra patra → Nimbu swarasa+saindhava lepa → 8 times Nirvapa in Nirgundi swarasa
04	Loha	7 times Nirvapa in Triphala kwatha
05	Naga	Liquify → Poured in Churnodaka for 7 times (Peethara yantra)
06	Vanga	Liquify → Poured in Haridra churna mishrita Nirgundi swarasa for 3 times (Peethara yantra)
07	Yashada	Liquify → Poured in Churnodaka/Nirgundi moola swarasa/ Arka dugdha for 7 times. Or in Godugdha for 21 times (Peethara yantra)
08	Pittala	Pittala patra → 5 times Nirvapa in Haridra churna mishrita Nirgundi swarasa
09	Kamsya	Kamsya patra → 7 times Nirvapa in Gomutra
10	Vartaloha	Nirvapa in Ajamootra / Ashwamootra

Samanya Marana of Metals

Lohaanaam Maaranam Shreshtam Sarvesham
Rasabhasmanaam |

Moolibhirmadhyamam Praahu: Kanishtam
Gandhakaadibhi: |

Arilohena Lohasya Maaranam Durgunapradam ||

-RRS 5/14

ARILOHA / MARAKA DRAVYA

SL.NO.	DHATU	MARAKA DRAVYA
01	Swarna	Neelanjana / Naga
02	Rajata	Haratala
03	Tamra	Gandhaka
04	Loha	Swarnamakshika
05	Naga	Manashila
06	Vanga	Haratala
07	Yashada	Gandhaka
08	Pittala	Gandhaka
09	Kamsya	Gandhaka
10	Vartaloha	Gandhaka

Marana

SL. NO	DHATU	MARANA METHOD
01	Swarna	Kantakavedhi Patra → Smearred with Nimbu Swarasa Mardita Parada Bhasma → Dry → Sharava samputa → Kukkuta puta (10) → Bhasma
02	Rajata	Kantakavedhi Patra → Smearred with Kumari Swarasa Mardita Kajjali → Dry → Sharava samputa → Laghu Putra (2) → Bhasma
03	Tamra	Kantakavedhi Patra → Smearred with Nimbu Swarasa Mardita Kajjali → Dry → Sharava samputa → Gaja Putra (3) → Bhasma
04	Loha	Loha Churna + Shuddha Gandhaka → Triturated with Kumari swarasa → Chakrika → Dry → Sharava samputa → Gaja Putra (10) → Bhasma

SL. NO	DHATU	MARANA METHOD
05	Naga	Shu.Naga→Liquify→Add equal part of Parada → Poured to khalwa and triturated→washed with Nimbu swarasa → Dry → Shu.Gandhaka → Triturated for 2 Prahara→Sharava Samputa → Laghu Puta→Bhasma
06	Vanga	Vanga Patra→Smeared with Palasha moola twak kwatha Mardita Haratala→Dry→Sharava Samputa → Laghu Puta (4)→Bhasma
07	Yashada	Shu.Yashada→Liquify→Add equal part of Parada → Poured to khalwa and triturated→washed with Nimbu swarasa → Dry → Shu.Gandhaka → Triturated →Sharava Samputa→Kukkuta Puta→Bhasma

SL.NO	DHATU	MARANA METHOD
08	Pittala	Pittala Patra → Smearred with Nimbu Swarasa Mardita Shu.Manasila + Shu.Gandhaka → Dry → Sharava samputa → Ardhagaja Puta (8) → Bhasma
09	Kamsya	Kamsya Patra → Smearred with Nimbu Swarasa Mardita Shu.Haratala + Shu.Gandhaka → Dry → Sharava samputa → Ardhagaja Puta (8) → Bhasma
10	Vartaloha	Vartaloha Patra → Smearred with Arka dugdha Mardita Shu.Haratala + Shu.Gandhaka → Dry → Sharava samputa → Gaja Puta (5) → Bhasma

Bhasma Guna

SL.NO	DHATU	PROPERTIES OF BHASMA
01	Swarna	Mrutam suvarnam madhurancha vrishyam hrudyancha netryam paramancha medhyam Rasayanam pumsavanopayogi vishaapaham kaantikarancha shastam (R.T. 15/69)
02	Rajata	Roupyam sheetam kashayaamlam snigdham vataharam laghu Rasayana vidhaanena sarvarogaapahaarakam (R.R.S.5/28-29)
03	Tamra	Tamram tiktakashayakancha madhuram paake cha veeryoshnakam saamlam pittakaphapaham jathararukkustamajantvantakrit Urdhwaadha: parishodhanam vishaharam sthoulyapaham kshutkaram Durnaamkshayapandurogashamanam netryam param lekhanam (R.Chu.14/39)
04	Loha	Kaantaayo atirasayanottarataram swasthe chiraayu:pradam snigdham mehaharam tridoshashamanam shoolaamamoolaapaham Gulmapleeha yakritkshayaamayaharam pandoodaravyadhinuktiktoshnam himaviryakam kimaparam yogena sarvartinut (RRS 5/96)

SL.NO	DHATU	PROPERTIES OF BHASMA
05	Naga	Mrutantu seesam madhurancha tiktam snigdham tathoshnam guru lekhanancha Saram tatha vahnivivardhanancha rasagamagnai: khalu sampradishtam (RT 19/43)
06	Vanga	Vangam tiktoshnakam rookshameeshat vataprakopanam Meda: sleshmaamayaghnancha krimighnam mehanashanam (R.Chu. 14/134)
07	Yashada	Yashadam tuvaram tiktam sheetalam kaphapittahrit chakshushyam paramam mehaan pandushwasam cha naashayet (AP 3/183)

SL.NO	DHATU	PROPERTIES OF BHASMA
08	Pittala	Reetistiktarasaa rooksha jantughni saasrapittanut krimikushtaharaa yogaat sooshnaveerya cha sheetala (RRS 5/195)
09	Kamsya	Kamsyam laghu cha tiktoshnam lekhanam drukprasadanam krimikushtaharam vatapittagham deepanam hitam ghritamekam vinaa chaanyasarvam kamsyagatam nrinaam bhuktamaarogyasukhadam hitam satmyakaram tatha (RRS 5/208-209)
10	Vartaloha	Himaamlam katukam rooksham kachapittavinaashanam ruchyam twachyam krimighnam cha netryam malavishodhanam tadbhaande saadhitam sarvamannavyanjanasoopakam aamlena varjitam chaapi deepanam pachanam hitam (RRS 5/213-214)

SL.NO	DHATU	DOSE	ANUPANA	INDICATION	YOGA
01	Swarna	1/8 -1/4 Ratti (15 - 30 mg)	Madhu, Maricha churna + Ghrita, Trikatu churna + Ghrita	Phiranga, Bhrama, Murcha, Aakshepa, Unmada, Apasmara, Vrushya	Kasturibhairava Rasa Makaradhwaja, Yogendra Rasa, Swarna Parpati
02	Rajata	¼ - 1 Ratti (30–125 mg)	Madhu, Ghrita, Navaneeta	Jeernajwara, Pleehodara, Kshaya, Naadishoola, Apasmara, Hrudyā	Grahanikapata Rasa Trilokyachintamani Rasa, Jayamangala Rasa
03	Tamra	1/8 -1 Ratti (15–125 mg)	Madhu, Rogaanusara swarasa, churna, kwatha	Sthoulya, Pandu, Udara, Arsha, Shotha, Amlapitta, Grahani, Kasa	Arogyavardhini vati Tamra Parpati, Hrudayarnava Rasa
04	Loha	¼ - 2 Ratti (30–250 mg)	Triphala+Madhu Ghrita, Dugdha, Navaneeta	Pandu, Kamala, Medoroga, Kushta, Prameha, Hridroga, Amavata	Arogyavardhini vati Dhatri loha, Navayasa loha, Loha Parpati, Saptamruta loha

SL.NO	DHATU	DOSE	ANUPANA	INDICATION	YOGA
05	Naga	¼ - 1 Ratti (30–125 mg)	Madhu, Rogaanusara swarasa, churna, kwatha	Prameha, Vrina, Arsha, Gulma, Atisara, Raktapradara, Medoroga, Pandu	Jwarari rasa, Manikya rasa
06	Vanga	1-2 Ratti (125-250 mg)	Madhu, Ghrita, Dugdha, Navaneeta	Prameha, Medoroga, Udara roga, Shweta pradara, Upadamsha, Gulma, Krimi	Trivanga Bhasma, Swarna vanga
07	Yashada	½ - 1 Ratti (60-125 mg)	Madhu, Ghrita, Dugdha, Navaneeta	Prameha, Pandu, Kasa, Shwasa, Vrina srava, Raja: srava, Netra roga	Trivanga Bhasma, Yashadamruta malahara

SL.NO	DHATU	DOSE	ANUPANA	INDICATION	YOGA
08	Pittala	½ - 1 Ratti (60-125 mg)	Madhu, Roganusara anupana	Raktapitta, Krimi, Kushta, Pandu	Pittala Rasayana, Ratnaprabha vati
09	Kamsya	½ - 1 Ratti (60-125 mg)	Madhu, Roganusara anupana	Krimi, Kushta, Netra Roga	Kshayakesari Rasa, Muktadya churna, Nityananda Rasa
10	Vartaloha	½ - 1 Ratti (60-125 mg)	Madhu, Roganusara anupana	Twachya, Krimighna, Ruchya, Netrya	----

KANTALOHA PAREEKSHA

PAATRE YASYA PRASARATI JALE TAILABINDURNA
LIPTO | GANDHAM HINGU TYAJATI CHA TATHA
TIKTAAM NIMBAKALKA: | PAAKE DUGDHAM
BHAVATI SHIKHARAAKAARAKAM NAITI BHOOMOU |
KAANTAM LOHAM TADIDAMUDITAM
LAKSHANOKTAM CHA NAANYAT || (RRS 5/95)

LOHA DOSHA

GURUTAA DRUDHATOTKLEDA : KASHMALAM
DAAHAKAARITAA|
ASHMADOSHA: SADURGANDHO DOSHAA:
SAPTAAYASA: SMRUTAA: || (A.P. 3/223)

TAMRA AMRUTTEEKARANA

Tamra Bhasma 1 part + Shu.Gandhaka ½ part → Mixed → Bhavana with Panchamruta → Chakrika → Dry → Sharava samputa → 3 Gajaputa → Bhasma

LOHA NIRUTTIKARANA

Loha bhasma → Mix equal part of Shu.Gandhaka and Goghrita → Triturated with Kumari swarasa → Sharava samputa → 1 Gajaputa

MANDURA - IRON OXIDE

- When Loha (Iron) reacts with oxygen forms a compound called Mandura (Iron Oxide).
- Combination of 2 atoms of iron and 3 atoms of oxygen.
- Iron when comes in contact with water and oxygen, reacts and forms rust, called Mandura.
- It is also called Lohakitta

Types: 3

(1) Munda (2) Teekshna (3) Kaanta

GRAHYA MANDURA

SNIGDHAM GURU DRIDHAM CHAIVA KRISHNAM
KOTARAVARJITAM |

JEERNAM NASHTAPURA:STHA NCHA MANDURAM
GRAHYAMUCHYATE || (RT 20/126)

- Sarvasreshta- 100 year old Mandura
- Madhyama- 70 to 80 year old Mandura
- Adhama- 60 year old Mandura

SHODHANA

- Nirvapa in Gomutra for 7 times
- Nirvapa in Gomutra Nirmita Triphala Kwatha for 7 or 21 times

MARANA

Shuddha Mandura Churna → Bhavana with Triphala kwatha →
Sharava samputa → 30 Gajaputa → Rakta varna Bhasma

MANDURA BHASMA GUNA

MADURAM SUMRUTAM VRISHYAM SHISHIRAM RUCHIRAM
PARAM |

DEEPANAM PITTASHAMANAM RAKTAVRIDDIKARAM PARAM |
PANDUPRAMATTAMAATANGAMADAMARDANAKESARI |
KAMALAKUMKULISHAM MANDURAM TU VISHESHATA: |
SHOSHAPRASHAMANANCHAIVA TATHA
SHOPHAPRANAASHANAM | HALEEMAKAM CHA PLEEHANAM
MANDURAM HANTYASHESHATA: ||

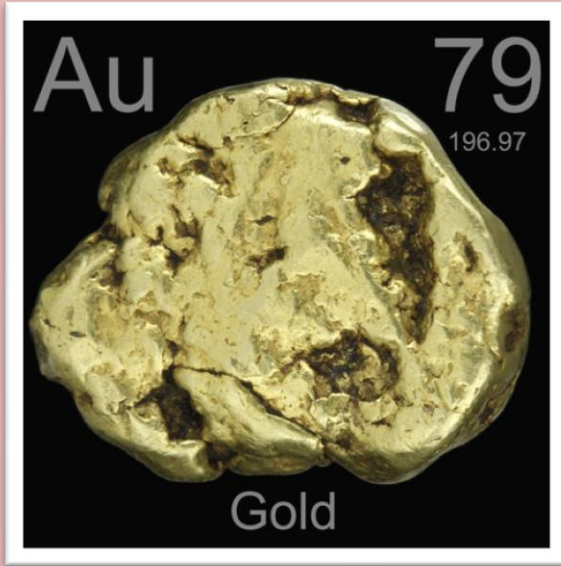
(RT 20/132-134)

Dose: ¼ - 2 Ratti

Anupana: Madhu

Formulations: Mandura Vataka, Punarnava Mandura, Triphala Mandura

SWARNA



RAJATA



TAMRA



LOHA



NAGA



VANGA



YASHADA



PITTALA



KAMSYA



VARTALOHA



THANK YOU...

