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ABSTRACT :

Mr Ruddarasnaga (Lead oxide) is one among the least explored drug in *Ayurveda Rasa Shastra* field. The reason behind this is lack of proper references of *Mr Ruddarasnaga* in Classical *Rasashastra* text books. In compilation works also only a few references are available about *Mr Ruddarasnaga* and its practical utility. But there are some *Vaidyas* belonging to South India, who have been using this drug in practice for various ailments both internally as well as externally. This paper is dealing with the types, Vernacular names, properties, therapeutic indications, *Shodhana* (purification) and *Marana* (incineration) procedures.

Key words: *Mr Ruddarasnaga, Shodhana, Marana, Lead oxide.*

INTRODUCTION: Only after 8th century some references about *Mr Ruddarasnaga* in *Ayurveda Rasa Shastra* texts is available. In Classical texts like *Rasaratna Samuchaya*, *Rasaprakasa Sudhakara* *Mr Ruddarasnaga* has been included one among *Saadharana rasa*. In *Rasaamrutha* the reference of *Mr Ruddarasnaga* can be

found in *Uparasa Vijnaneeyya Adhyaya*. In some other texts like *Rasa Tarangini* *Mr Ruddarasnaga* is included in *Naga Prakarana* (while describing lead and its compounds). Only external usage of *Mr Ruddarasnaga* is explained in most of the *Ayurveda Rasasastra* texts

<i>Rasaratna Samuchaya,</i>	<i>Saadharana rasa</i> ^[1]
<i>Rasaprakasa Sudhakara</i>	<i>Saadharana rasa</i> ^[2]
<i>Rasaamrutha</i>	<i>Uparasa</i> ^[3]
<i>Rasa Tarangini</i>	<i>Naga Prakarana</i> ^[4]

Various *Taila, Malahara Kalpanas* contain *Mr Ruddarasnaga* as chief ingredient known to be very effective in managing skin disorders and non healing ulcers. The internal usage of *Mr Ruddarasnaga Bhasma* is seen in *Rasayogarasagara* and also in *Rasa Tantra Sara va Siddha Prayoga*

Synonyms:

Sangraha. *Mr Ruddarassrunga* is identified chemically as Lead oxide. PbO occurs in two polymorphs, one litharge having a tetragonal crystal structure and the other Massicot having an orthorhombic crystal structure^[5].

Synonyms	AP ^[6]	RRS ^[7]	RT ^[8]	RA ^[9]	RC ^[10]	RP ^[11]	RPS ^[12]
Mr Ruddarasnaga	+	+	+	+		+	+
Mudrasankha	-	-	+	-	-	-	-
Murdasankhaka	-	-	+	-	-	-	-
Kedarasnaga	-	-	-	-	-	+	-
Vodarasnunga	-	-	+	-	-	-	-
Bodarasnunga	+	-	-	-	+	-	-
Nagasatva	-	-	-	+	-	-	+
Seesasatva	+	+	-	-	+	-	-
Seesagarbha	-	-	+	-	-	-	-

Vernacular names^[13]:

- English name : Litharge, Lead oxide
- Latin name : Plumbum oxidum
- Hindi : *Mudra sankha*
- Telugu : *Mudarusingu*
- Tamil : *Mudarusrungi*
- Malayalam : *Mrudarsrungi*

Classification:

I) Based on Origin^[14] – 1. *Khanija*
 2. *Krutrima*

II) Based on Colour^[15] – 1. *Peeta*
 2. *Pandura*

III) Based on Structure^[16] – 1. *Sadala*
 2. *Nirdala*

Note: Almost all classical texts mention the appearance of *Mruddarasrunga* in Nature as *Sadala* and *Peethabha*.

Availability^[17]

- From the surroundings of Mt. Abu and Aravaliin Guffera mandala (presently in Rajasthan).
- Now a days it is prepared artificially also by heating Lead Nitrate, Lead dihydroxide, lead carbonate.
- Artificial variety is considered as good as it is devoid of other impurities.

Note: According to classical texts availability of *Mruddarasrunga* is found maximum in *Arbudagiriparswa*.

Properties:

Rasa (taste): not mentioned

Guna (quality): *Guru* (heavy to digest), *Khara* (rough)

Veerya (potency) *Shishira* (Cold)

Karma (action): *Kaphahara* (*Rasaratna Samuchaya*)^[18]

Vata Kaphahara^[19]

Lekhana, Rechaka, Kesa Ranchana^[20]

Samkochaka, Kesya^[21]

Clinical Indications^[22]: *Pama Kandunashana, Phirangangagadapaha, Vrana Ropana, Bhagna Sandhanajanaka, Tvak Doshashamana.*

Shodhana:

1. *Samanya Shodhana* – *Bhavana* of *Mruddarasrunga* with *Matulunga (Nimbu) Swarasa* or *Ardraka Swarasa* for 3 days^[23].
2. *Mruddarasrunga* – *Bhavana* with *Bijapura (Nimbu) Swarasa* for 3 days^[24].
3. *Visesha Shodhana* – *Mruddarasrunga* is powdered in *Khalvayantra*, impurities are discarded and sieved through cloth to get fine powder. 15 days trituration is done with pure water. Then it is dried in sun^[25].

4. *Mruddarasrunga* is triturated with 1/4th part of *Saindhava lavana* for 1 prahara in *Khalvayantra* and 4 times of water is added, kept over one night. Then the water is discarded on the next day and the same procedure is repeated for 21 days^[26].

Marana^[27]: The *Mruddarasrunga* sample was pounded into small pieces and soaked in *Nimbu swarasa (Nimajjana)* for 3 days. While pounding earthen impurities should be removed from the sample. On 4th day take *Mruddarasrunga* from *Nimbu swarasa* and wash with luke warm water. *Marana* method of *Mruddarasrunga* is not often found in *Ayurveda Rasa Shastra* text books. For Marana process *Shodhita Mruddarasrunga* was triturated well with *Nimbu swarasa* and made into *chakrikas* of uniform size and was subjected to *Kapota Puta* (using 8 upalas). The *Putas* should be continued up to the desired qualities of *Bhasma* attaining. The fourth and final stage of *Mruddarasrunga Bhasma* preparation consists of 3-3 *Bhavanas* with *Triphala Kwatha, Kumari Swarasa, Gomutra, Nimbu Swarasa* respectively.

Therapeutic uses of Mruddarasrunga Bhasma:

- For *Mrutbhakshnjanya Vikaras* - In children *Mruddarasrunga Bhasma* 1/4

rathi (30 mg approx.) can be given with *Virechanaoushadha*^[28].

- *Mruddarasrunga Bhasma* 1 *rathi* (125mg) can be given for *Prameha* with *Haridra Churna* and *Honey*^[29].
- In *Upadamsa* – *Mruddarasrunga Bhasma* 1 *rathi* (125mg) can be given with *Lavanga*, *Maricha*, or *Ghruta* or *Sarkara* according to the condition^[30].

Siddha point of view: In *Siddha* system of medicine *Mruddarasrunga* is widely used for curing various ailments. Detailed description about *Mruddarasrunga* is available in various classical *Siddha* treatises. *Yakkob Siddha*^[31,32], *Machamuni*^[33] gave detailed description about *Mruddarasrunga* in their Classical texts. Artificial preparation of *Mruddarasrunga*, convenient method of various *Shodhana* and *Marana* procedures are readily available in *Siddha* Classics. According to *Siddha* tradition *Mruddarasrunga* is one among the 64 *Pashanas* (poisonous drugs). *Mruddarasrunga* is one of the chief ingredients among the *Navapashanasindoora* (potent *Kapha Vatahara Oushadha* having multilevel of action).

DISCUSSION: *Mruddarasrunga* is one among the *Sadharana Rasa* according to *Rasaratnasamuchaya*. It is chemically lead oxide and available in two forms Litharge and Massicot. Now a days, it is available in mainly Rajasthan and Southern part (Andhra Pradesh & Tamilnadu) of India. Even though various *Shodhana* methods of *Mruddarasrunga* are available in classical *Rasa Shastra* texts, *Marana* procedure is found only in *Rasayogasagara*. For the *Marana Kapota puta* is advised. The reason behind in the selection of *Kapota Puta* was that PbO is not stable in higher temperature. PbO will be reduced to Metallic Lead at 1200°C^[34]. *Mruddarasrunga Bhasma* is mainly indi-

cated in *Prameha* and *Upadamsa*. It is mainly *Kaphahara* in nature. It will be effective in managing *Prameha* as the causative *Dosha* is *Kapha*. In *Upadamsa* also the *Bhasma* will be effective. The *Bhasma* also having *Vrana Shodhana* and *Ropana* quality. It can be given in various skin disorders.

CONCLUSION: The *Mruddarasrunga Bhasma* is one among the effective drug practised in South India for various Non healing ulcers, Psoriasis etc. But due to the lack of proper references and practice it remains as least explored. This paper covers the important references, the properties, *Shodhana*, *Marana* and various therapeutic applications. *Mruddarasrunga Bhasma* is a cost effective medicine which produces desired effects with in less duration of time.

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