

**RASA DRAVYAS; AN AYURVEDA REVIEW W.S.R. TO THEIR THERAPEUTIC AND ADVERSE EFFECTS**Dr. Kamlakar Krishnarao Gowardhan\*<sup>1</sup>, Dr. Pranaykumar Dinkarrao Utane<sup>2</sup> and Dr. Anuja Sudhir Kulkarni<sup>3</sup><sup>1</sup>HOD, Associate Professor, *Ras Shastra & BK Dept.*, Dr. Rajendra Gode Ayurved College, Hospital & Research Centre, Amravati, Maharashtra, India.<sup>2</sup>Reader, Ayurveda Samhita Dept., Dr. Vedprakash Patil Ayurved College and Research Institute, Jalna, India.<sup>3</sup>Professor, Rognidan, Dr. VJD Gramin Ayu College, Patur, India.**\*Corresponding Author: Dr. Kamlakar Krishnarao Gowardhan**HOD, Associate Professor, Ras Shastra & BK Dept., Dr. Rajendra Gode Ayurved College, Hospital & Research Centre, Amravati, Maharashtra, India. DOI: <https://doi.org/10.17605/OSF.IO/6NWC9>

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**ABSTRACT**

Ayurveda the historical system of medicine presented many concepts based on the knowledge and practices of ancient Indian philosopher. The ancient concepts of Ayurveda enlighten paths of healthy living, in this regards Ayurveda described many herbal and materials based formulation. These herbal and mineral based formulations not only help to maintain general health but also cure chronic health ailments. The preparation, uses and analysis of plants and minerals/metals based formulations mainly deals in Rasashastra branch of Ayurvedic medicine. The formulation of Rasashastra belongs from Parad which is considered as Rasa in Rasashastra. Abhraka, Makshika, Hingula, gold, copper and lead, etc. are materials which utilizes in Rasashastra along with plant materials. The mineral/metal used in Rasashastra offers specific therapeutic benefits if used in proper manner but if these elements not used in proper manner then some side effects may also observed. Considering this fact present article explained therapeutic and adverse effects of minerals/metals used in Rasashastra.

**KEYWORDS:** Ayurveda, Rasa, Metal, Mineral, Parad.**INTRODUCTION**

The *Veda* of *Ayu* (life) is Ayurveda which concerned with the prevention and treatment of diseases. Ayurveda utilizes natural materials like; herbal, mineral/metal and animal based products for the management of health ailments. Ayurveda presented many branches which specifically work for particular purpose and *Rasashastra* is one such modality of Ayurveda which deals with

mineral/metals based formulations and their therapeutic utility. *Parada, Swarna, Rajata, Lauha, Vanga, Tamra, Yasada* and *Naga*, etc. are the major elements used for therapeutic purpose under the principles of *Rasashastra*. These elements impart many physiological effects on human body therefore responsible for various therapeutic properties. **Table 1** showing some minerals/metals and their formulations used for therapeutic purposes.

**Table 1: Depicted some formulations prepared from specific *Rasadravya* (mineral/metal).**

S. No.	<i>Rasadravya</i> (mineral/metal)	Related formulation
1	<i>Loha</i>	<i>Yogaraaj</i>
2	<i>Suvarna</i>	<i>Dwitiya Braahma Rasaayana</i>
3	<i>Maakshika</i>	<i>Mandura Vataka</i>
4	<i>Gandhaka</i>	<i>Muktaadya Churna</i>

**Therapeutic role of *Rasadravya* (mineral/metal) used in *Rasashastra*:**

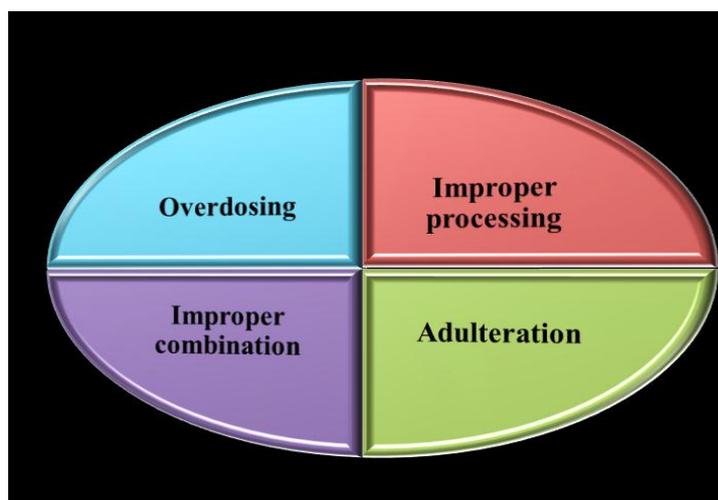
- *Abhrak* is helpful in skin diseases and possess immunomodulation action.
- *Sankha* offers anti-ulcer and healing effects.
- *Tamra* possess hepato-protective effect.
- *Mukta* is beneficial in inflammatory problems and resist pain.

- *Mandur* is helpful in anemia and improve quality of blood.
- *Suvarna* boost mental and physical strength.

These *Rasaoushadies* exerts therapeutic response in small doses and provides quick relief therefore dose consideration is another factors associated with uses *Rasaoushadies*. Great caution require while deciding dose of minerals/metals based formulations specifically

for pediatric purposes. The overdosing or improper conduction of manufacturing processes like; *Shodhana* and *Marana*, etc. can causes adverse health effects such as; vision impairments, skin manifestations, vomiting

and gastric troubles, etc. **Figure 1** depicted possible sources of adverse effects associated with *Rasaoushadies*.



**Figure 1: Possible sources of adverse effects associated with *Rasaoushadies*.**

*Rasashastra* utilizes many processes like detoxification, trituration, pulverization and calcinations, etc. for preparing metal and mineral based formulations. These processes not only convert metallic formulations in compatible forms but also improve therapeutic potency of ingredients. Oil, rice gruel, buttermilk, herbal decoctions and cow's urine, etc. are materials used to purify raw forms of metals and minerals. *Murchhanaa*, *Jarana*, *Marana*, *Amritikarana* and *Sattvapatana*, etc. are methods used in *Rasashastra*.

#### Therapeutic role of some formulations

- *Tranakantamani pisti* used for menorrhagia and bleeding disorders.
- *Pravala pisti* suggested for immunity and digestive impairment.
- *Mallasindura* used for bronchial asthma and syphilis.
- *Kantavallabha rasa* helpful in spleen disorders, anemia, emaciation and asthma, etc.
- *Rasasindura* helps in diarrhea and skin disorders.
- *Mukta Pisti* helps in diarrhea, heart disease and bleeding disorders.
- *Vatagni kumara rasa* recommended for cough and fever.
- *Svarna sindura* recommended for oligospermia and learning disability.
- *Samirapannaga rasa* helps in stiffness of joints, fever and asthma.
- *Panchamirta Parpati* with honey helps in diarrhea and fever.
- *Rasa Parpati* with milk helps in diarrhea and dysentery.
- *Lauha Parpati* advised for digestive impairment, dyspepsia and anaemia.

As mentioned above it is clear that *Rasaoushadies* offers many therapeutic advantages, however if not processed properly then such element may also causes adverse health effects, thus it is essential to acquire knowledge about side effects of metals/minerals.

#### Possible side effects of improperly processed metals/minerals

- *Abhraka* may cause skin problems and oedema.
- *Gandhaka* can cause skin problems, giddiness, loss of vigor and oligospermia, etc.
- *Paarada* if not used after proper purification then it may causes skin disorder, lack of immunity, vomiting, dyspepsia and burning sensation, etc.
- *Hingula* if used improperly may cause general debility, malaise, intoxication and renal disorders, etc.
- Silver may impart gastric problem and dyspepsia if not purified properly.
- Incompatible form of *Manasila* is responsible for loss of strength, may cause constipation and urinary obstruction.
- *Tankana* if not used after proper purification may leads vomiting and giddiness.
- The side effects of *Gold* are loss of vigor, oligospermia and loss of immunity.
- *Taamra* can causes side effects of giddiness, burning sensation, perspiration, vomiting and mental irritation.
- Incompatible form of *Vanga* is responsible for hemorrhides, dyspnoea and polyuria, etc.
- The adverse effects of impure Iron are sterility, skin manifestation, renal calculi and nausea.
- *Yasada* can lead polyuria and skin manifestation if not used after proper processing.

- Improper uses of *Naaga* can leads polyuria and liver problems.

## CONCLUSION

The specific branch of Ayurveda i.e. *Rasashastra* deals with processing and utilization of metals/ minerals based formulations. *Makshika*, *Hingula*, gold, *Abhraka*, lead and copper, etc. are under theoretical principles of *Rasashastra* along with plant materials for therapeutic purposes. The mineral/metal used in *Rasashastra* offers specific therapeutic benefits like; anti-oxidant, antimicrobial, anti-inflammatory, immune-modulatory, anti-ulcer, hepato-protective and strength boosting effects, these drugs significantly provides health benefits in skin disorders. These *Rasaoushadies* prepared from specific processes and improper conduction of manufacturing processes can causes adverse health effects of impure elements such as; skin manifestations, vomiting, irritation, mental confusion, gastric troubles and renal problems, etc. thus it is required to processed or purify metals/minerals properly before using for therapeutic purposes.

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