

**PARAD: THROUGH AYURVEDA PERSPECTIVE****Dr. Tanuja Bharti\*<sup>1</sup> and Dr. Divya Deepak Sharma<sup>2</sup>**<sup>1</sup>Assistant Professor, Department of Rasashashtra, Abhilashi Ayurvedic College and Research Institute, Mandi, Himachal Pradesh, India.<sup>2</sup>Associate Professor, Department of Shalya Tantra, Abhilashi Ayurvedic College and Research Institute, Mandi, Himachal Pradesh, India.**\*Corresponding Author: Dr. Tanuja Bharti**

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Article Received on 21/10/2020

Article Revised on 11/11/2020

Article Accepted on 01/12/2020

**ABSTRACT**

In classic medicines contains three classes of fixings viz, 1-natural beginning, 2-creature beginning, 3-metal beginning to achieve the cheerful and sound life. Natural items were broadly utilized in the exemplary age in all branches of Ayurveda. Metal and minerals were additionally utilized as a piece of restorative specialist yet less as often as possible when contrasted with home grown medication since they have harmfulness. India have substantially more metal, for example, – Arsenic, lead, zinc, copper and so forth, which are utilized for treatment for different illnesses, Parada is one of them. A large portion of the metals are available in strong structure however parada are in semi-fluid structure, it is uncommon. Parada is mobile and brilliant like white sparkly metal. It is called Rasa as it is the actual embodiment of ruler Shiva and furthermore as it swallows different metals. Parada is the metal that is utilized most regularly in different Ayurvedic medication uniquely Rasayoga as its bhasma. In Ayurveda different doshas are referenced for Parada in Rasagranthas which is seen in ashodit Parad. It is moreover referenced that shudha Parad isn't poisonous and shows Rognashak property and go about as medication. So in the current time the poisonousness of parada is delivered by Ashudh type of parada. This article gathers all the data identified with Parad and parada like Introduction, appearance, beginning, verifiable survey, deadly portion, lethal period, sign and side effects of its harmfulness, the board, posthumous appearance, medico legitimate viewpoints.

**KEYWORDS:** Parada, Parad, Chronic harmfulness, Rasagranthas.**INTRODUCTION**

As per Vedas, parad or parada is an exceptional gift from nature. It is one of the unadulterated and promising metal. it has otherworldly and strict importance, yet has broad mending properties too. Ayurvedic drugs are ready from parad. Clinical science acknowledges the force of parad for controlling hyper pressure, asthma what's more, improve sexual capacity. When parada, which is polluted is purged and blessed by different cycles, it become strong and is known as shuddha parad The old style text Rasaratna samuchchaya states that "Siddhae rase Karishyami Nirdraaridrayam agadam jagat". All in all, if parada is sanctified and changed over in to decontaminated structure, then, at that point all sicknesses and destitution of the world can be disappeared.

**Ayurvedic Literature on Parad**

Rasashastra dravyas incorporate minerals and metal which are principally Bhumij in beginning, Parada is additionally one among them. In rasashastra, the additional standard significance of Parada is effortlessly seen as the entire branch is named after Parad (equivalent

word – rasa). It is accepted to be devine beginning also, according to the folklore it is viewed as Shiv – veerya.

As per references accessible in rasa traditional texts, at first Parada was utilized for lohavada (a course of changing over lower metals in to higher one) yet as time passed its utilization for dehavada (treating sickness) was brought into picture and was effectively seen Thus advanced its utilization in treatment. The type of parada utilized demonstrates its harmfulness and utility. In Rasashastra most extreme occasions parada is utilized along with sulfur. Accordingly shapes parada sulfide which is safest. But still in whichever structure parada is utilized it ought to be taken care of cautiously as its abuse might prompt toxicity.<sup>[1]</sup>

**Equivalents & Vernacular Names of Parad<sup>[1]</sup>**

Sanskrit-Parad  
Hindi-Para  
Marathi-Para  
English-Parada  
Latin-Hydrarigium (Hg)  
Shuddha Paradswaroop<sup>[1]</sup>

The parad having blue hint inside and brilliant outside, also, having lusture of sun as seen as early afternoon, is supposed to be best, though, the Parada which has smoky grayish or dull white tone or peculiar blended shading ought not be utilized in distinctive rasa karmas. In present day science a comparative clarification with respect to parada states that parada is a silver white fluid metal, with slight somewhat blue hint. In dainty flims, it produces violet light.

### Sorts of Parada<sup>[1]</sup>

As per the beginning of Parada. It is ordered in to 5 types viz-Rasa, Rasendra, Suta, Parada and Mishraka.

### PARAD GATI

Parad has 5 sorts of gati which is viewed as the fundamental driver of loss of parada while producing parada contain kalpas or while doing parada shodhna. They are 1) Jala Gati 2) Hansa Gati 3) Mala Gati 4) Dhooma gati 5) Jeeva Gati or Adrushya Gati.

### Doshas of Parada

There are principally 3 doshas in Parada Naisargika – Visha, Vahni, Mala Yogika-Naga, Vanga Aupadhik – Parpati (Bhumij), Patni (Girij), Bhedi (Varij), Dravi, Malkari (Naga), Andhkari, Dhwanakshi (vang)

### Ayurvedic Pharmacological and Therapeutic Properties of Parada<sup>[1]</sup>

Rasa-shadarasa  
Guna – snigdha, sara, master  
Virya – Ushna  
Vipak – Madhura  
Prabhava-Yogavahai

### KARMA

Yogavahi, Rasayana, Balya, Vrissy and so forth In case parada is liberated from all doshas, it is prepared to do annihilating passing and infirmity. Vyadhi Prabhava Kushtahar, Rasayana, Amruta, Sarvarogahara, Vataroga In Bhavprakashya, significant properties of parada are depicted as- - It has a mitigating impact upon the human framework (Snigdha) - It right the irregularity of three Doshas (Tridoshaghna) - It is solid in forestalling illnesses and appearance of untimely advanced age (Rasayana) - It serves to increase the therapeutic properties of anything with which it is compounded (Yogavahi) - It is best love potion (Mahavrishya) - It is consistently expands the strength of the eyes (Sadadrishtibala Parada) - It fixes a wide range of illnesses particularly skin sicknesses. In Rasendra Sara Sangraha it has been referenced that Parada expands Budhi (knowledge), Smiriti (memory power), Prabha, kanti (lusture), Bala (strength of the body). These properties of Rasa are possibly gotten when it is utilized in handled structure.

### As per Modern View<sup>[2]</sup>

Mercury has three structures:

1-Elemental Mercury is weighty, silver fluid and unpredictable at room temperature. It is non-harmful, if gulped, since it is inadequately ingested from the GIT. However, fume can bring about intense poisonousness.

2-Inorganic salts poisonousness happens in a few structures; metallic Mercury (Hg), mercurous Mercury (Hg<sup>1+</sup>), or on the other hand mercuric motorcade (Hg<sup>2+</sup>).

3-Organic compound are found in three structures: aryl furthermore, shorts-and long – chain alkyl compounds. Natural salts are preferred consumed structure the GIT over the inorganic salts in view of inborn properties, like lipid dissolvability. It can cross the blood-cerebrum boundary to collect in the cerebrum, thus CNS impacts are more overwhelming. Interestingly, the kidney is the fundamental stockpiling organ for inorganic mixtures. Mercury openings happen primarily through inward breath of essential mercury fume through word related or dental combination (silver filling in light of its tone).

Mercurial's is harming coming about because of the ingestion or on the other hand inward breath of mercury or its mixtures. It tends to be intense or constant.

### Uses<sup>[3]</sup>

Medication: Disinfectant, dental blend, laxative and diuretic, and prior utilized in the treatment of syphilis. A dubious wellspring of natural parada openness is thimerosal, an additive utilized in vaccines (DTP and hepatitis B) to forestall bacterial tainting. Industry: Manufacture of thermometer, gauge, adjustment instruments, fluorescent and parada fume light, electrical gear, explosives and firecrackers. Incidental: Electroplating, photography, insect poison, disinfectant, unique finger impression powder, paints and treating liquid.

### Action<sup>[4]</sup>

a. Mercury ties with sulfhydryl bunches coming about in chemical hindrance and obsessive modification of cell layers.

b. Basic mercury and methyl mercury are poisonous to the CNS. Metallic mercury fume is additionally a pneumonic aggravation. Inorganic mercury salts are destructive to the skin, eyes, and GIT, and nephrotoxic. Inorganic and natural structures might cause contact dermatitis.

### Ingestion and Excretion

It is consumed through the GIT and respiratory parcel. After ingestion, mercury get kept in all tissue, especially in the liver, kidney, spleen and bones. When breathed in, the most extreme focus happens in the mind. Principally discharged through the kidney (pee), liver (bile) also, colonic mucous layer (dung) It passes quickly to the hatchling through placental course.

**Acute poisoning****Sign and manifestations**

**GIT**- Metallic taste, sensation of narrowing in the throat, dry voice. Mouth, tongue and faces become consumed, enlarged; also, mucous layer seems grayish white. Hot consuming agony from the mouth to the stomach, what's more, torment emanating over the midsection followed by sickness, regurgitating and retching.

**RENAL**- Oliguria, albuminuria and hematuria finishing off with renal disappointment or nephritic condition. **CVS**-Hypertension, tachycardia, trouble in breathing and circulatory breakdown.

**FATAL DOSE**-1-4g of mercuric chloride, 10- 60mg/kg of methyl mercury and 10mg/m<sup>3</sup> of mercury fume. Lethal Period 3-5 days. Analysis Acute mercury harming can be distinguished by estimating blood levels, while pee and hair examination help affirming ongoing openness. Pee and blood mercury levels are surveyed by nuclear ingestion spectrophotometer. Mercury convergence of hair is best surveyed by neutron enactment.

**Treatment**

In the event of inward breath, the casualty is right away eliminated from wellspring of openness and supplemental oxygen is given, and noticed for the turn of events of intense pneumonitis and aspiratory edema.

Eggs whites, milk or creature charcoal to accelerate mercury. Emesis isn't initiated due to the danger of genuine destructive injury.

Gastric lavage with 250ml of 5% sodium formaldehyde sulfoxylate. Around 100 ml of this arrangement is left in the stomach. Lavage should be possible with egg-white arrangement or 2-5% arrangement of sodium bicarbonate.

High colonic lavage with 1:1000 arrangement of sulphoxylate twice every day. Entire inside water system might be finished.

BAL is the conventional chelator of choice(10% arrangement in oil, 3-5 mg/kg IM each 4 h for 2 days, tightened to 6 hourly for 1 days and afterward 12 hourly for 7 days), however oral specialists are ideal.

There is no job for dialysis, hemoperfusion or rehash portion charcoal in eliminating metallic parada or inorganic salts. Notwithstanding, hemodialysis/peritoneal dialysis might be needed if there should arise an occurrence of renal disappointment.

Maintain electrolyte and liquid equilibrium. Symptomatic treatment.

**After death Findings<sup>[3]</sup>**

Body looks gaunt.

**GIT**-Mucosa shows aggravation, blockage and grayish erosion. Ulceration or even gangrene of internal organ might be seen.

**KIDNEY**-Acute proximal cylindrical harm and glomerular degeneration or glomerular nephritis might be seen.

**LIVER**-Congested and shows overcast enlarging or greasy change.

**HEART**-Fatty degeneration and sub endocardial discharge.

**Constant Parada Poisoning<sup>[3]</sup>**

Chronic harming results from:

Continuous incidental ingestion by laborers.

Excessive remedial use.

Recovery from huge portion.

If a balm is utilized as an outer application for a long time.

**Sign and Symptoms**

Chronic inebriation from inward breath of mercury fume produces-Tremor, neuropsychiatric unsettling influences and gingivostomatitis.

Chronic harming with inorganic mercury compounds is portrayed by vague early indications like anorexia, sleep deprivation, strange perspiring, cerebral pain, faintness, quake, gum disease, hyper salivation, extricating of teeth with blue line in the gum, jaundice, expanded pee.

**Explicit Features/Diseases**

Danburry Tremors/Shaking Palsy-It happen first in the hand, then, at that point advances to the lips and tongue, lastly includes the arms and legs. Quake is reasonably coarse what's more, is scattered by jerky developments. In the high level stage, the individual can't dress himself, compose clearly or walk appropriately. They are moreover called hatter's shakes or glass blower' shakes, as they are normal in person working with mercury in glassblowing and cap enterprises Acordynia or Pink Disease-It is seen generally in kids because of quirky excessive touchiness response to rehashed ingestion or contact with mercury.

Sign and side effects There is pinkish morbilliform/ acral rashes, desquamation of palms and soles, torment in the limits, flushing, tingling, expanding, tachycardia, hypertension, over the top salivation or sweat, shortcoming, peevishness, photophobia, anorexia, a sleeping disorder, also, blockage or loose bowels.

**Treatment**

Remove the patients from the wellspring of openness.

Oral cleanliness.

Demulcent beverages.

Saline laxatives.

After death Findings: Outside Emaciated body with fair skin. Disintegration of oral mucosa, gum of lower jaw might show somewhat blue dim lines of shade statement, alongside slackening of teeth. Inner Inorganic mercury harming may cause cerebral areas of dead tissue, pneumonia, renal cortical corruption and spread intravascular coagulopathy.

#### **Medico-Legal Aspects<sup>[5]</sup>**

Self-destructive and desperate harming is uncommon. Be that as it may, cases of purposeful intravenous or subcutaneous metallic mercury infusion have been accounted for.

Accidental ingestion might happen from broken thermometers.

Accidental ingestion of germicide arrangements containing mercuric chloride/cyanide.

Soluble salts as vaginal douches.

Absorption of inconsistent planning applied to the skin.

Intravenous organization of natural inconsistent's, like diuretics.

#### **CONCLUSION**

Parada or mercury an inorganic metallic toxic substance has entranced individuals for centuries, as a substantial fluid metal. It is constantly found in joined structure in nature. It plays no known organic part, yet is available in all things and far and wide in the climate. Each mouth brimming with food we eat contains a moment of mercury. The sicknesses causing impact of Mercury is because of the admission of polluted mercury present in soil, water and air. Its utilization in sullied structure causes different sicknesses as talked about above. Yet, different Sanskar led on it render it poison less furthermore, consequently different readiness of Ayurvedic drugs use it. Anyway many employments of mercury are being eliminated by present day researchers and are under audit.

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