

### ***Shodhana (Purification) According to Ayurveda with special reference to Tamra***

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#### **Abstract**

Shodhana is a process of removal of impurities from substances by means of pharmaceutical processing of swedana, mardana etc. with particular drugs i.e., it eliminates the doshas in a dravya. The shodhana process described in classics of ayurveda is not merely a process of separation, purification or detoxification; rather it increases the therapeutic potency of the drug also. The main objective of shodhana process is to reach upto the mark of suitable properties for further procedures & to increase the biological efficacy of the drug. It is a process by which blemishes are separated from the substance by various techniques like grinding, etc. with specific drugs. Shodhana is a process of purification and detoxification by which physical and chemical blemishes and toxic materials are eliminated and substances are subjected for further processing. This article gives deals with the different shodhana treatments applied for purification of tamra.

#### **Keywords**

*Shodhana, Purification, Tamra*



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## INTRODUCTION

Ayurvedic texts like rasa ratnasamucchaya and many other rasashastra texts have defined the concept of shodhana. Especially the purification of mineral drugs is of utmost importance. It converts the inorganic mineral Drugs into an organic form which can be easily assimilated in the human body. The purification treatments are not only meant to reduce the toxicity level but also to increase the potency of the drug<sup>1</sup>. During shodhana treatments the mineral drug undergoes various processes like dehydration, filtering, peeling, distillation, cleaning sorting, polishing, washing etc<sup>2</sup>. For example, dehydration is done for the purification of kankshi (Alum) and tankana (Borax).

Shodhana process is grossly subdivided into two major categories as follows<sup>3</sup>:

- **Samanya (General) Shodhana:**

It is used as general procedure for process of shodhana of each and every drug belonging to a particular group, in other words the shodhana procedure for each drug remains the same, e.g. samanya shodhana of dhatu.

- **Vishesha (Special) Shodhana:**

It is used as specific procedure for every drug material separately and not commonly

for a group, as in samanya shodhana. It should be applied after samanya shodhana, e.g. vishesha shodhana of vanga in churnodak.

- **Objectives of Shodhana:**

1. Elimination of physical and chemical impurities, which are not expected to exist in the drug.
2. Removal or diminution of toxicity of the material.
3. Transformation of the hard and non-homogeneous material to soft, brittle and homogeneous powder.
4. Induction of desired qualities.
5. Increase in the potency of the drug material.
6. Making the material suitable form for further processing.
7. Leads to unique and suitable physico-chemical changes.
8. In some cases, to use the drug directly for therapeutic purpose instead of any further processing.

In rasashastra the shodhana process includes drugs having acidic nature like Lemon, Butter-milk, Kanji, alkaline nature like churnodaka or neutral nature like water. The treatment includes various methods like heating, steaming or simply washing with these drugs. Sometimes after heating the

minerals are dipped into cold fluids (churnodaka, Oils, Cow's urine etc). This makes the mineral brittle by breaking the bonds and thus exposes maximum drug to the purifying medium. Due to this purification process the toxic elements gets diminished because of the reactions taking place thus minerals become less toxic. Thus shodhana reduces the physical & chemical impurities from the mineral, increases its potential by incorporating useful ingredient into it and also reduces the toxic effects. The drugs of herbal or animal origin used in the process of shodhana changes the properties (guna) of minerals because of the treatment (sanskara) given<sup>4</sup>. This process not only helps in the faster and safer absorption into body fluids but also makes it suitable for further process of marana, amrutikarana, lohitikarana & satvapatana etc. The present study discusses the shodhana treatments applied to tamra and its effects.

- **Samanya (General) Shodhana Treatment of Tamra :-**

Long thin sheets of tamra are recommended for this process. These sheets are heated red hot & are immersed in sesame oil. After dipping tamra sheets are taken out and reheated and again dipped in fresh sesame oil. The same sheet is again heated & dipped

into butter-milk, Cow's urine, Sour gruel and decoction of kulattha one by one, seven times each. This treatment helps in loosening the bonds of tamra, making it fragile.

After completion of samanya shodhana, a vishesh shodhana can be performed for tamra.

- **Vishesh (Special) Shodhana Treatment of Tamra :-**

The coarse powder of tamra (obtained after samnya shodhana treatment) is smeared with Lemon juice and Rock salt (saindhav). It is then heated red-hot and immersed into a Sour gruel (Kanji). This treatment is repeated for eight times.

## MATERIALS AND METHODS

- **Samanya (General) Shodhana Treatment of Tamra:-**

### Materials-

Thin Sheets of tamra : 1000 gm.

Sesame oil, butter-milk, cow's urine, Sour-gruel; Decoction of kulattha: - 5 liters each.

### Equipments:-

Vessels, koshti, sandhasha, spatula etc.

### Method-

Thin sheets of tamra were heated up to red hot and quenched into sesame oil. This was

done again and again for seven times. Similarly, the process was repeated with butter-milk, Cow's urine, sour gruel and a decoction of kulattha.

• **Special (Vishesh) Shodhana**

**Treatment of Tamra-**

**Materials-**

Samanya shodhita tamra churna: 960 gm.

Lemon juice- 500 ml.

Rock salt- 100 gm.

**Equipments-**

Vessels, koshti, sandansh, spatula etc.

**Method-**

Samanya shodhita tamra churna was placed in vessel. It was then smeared with lemon juice and rock salt. It was heated until tamra churna became red hot and then immediately immersed into a sour gruel. This process was repeated for eight times.

## OBSERVATION & RESULTS

**Table 1** Samanya (General) thodhana Treatment of tamra

	Weight	Wt. loss	Colour	Physical Form
Raw Tamra	1000 g	-	Blackish	Thin Sheets
In Sesame oil	990 g	10 g	Dark Brown	Thin Sheets
In Butter milk	985 g	5 g	Dark Brown	Sheets (Cut-pieces)
In Cow's urine	975 g	10 g	Blackish Red	Cut-pieces
In Sour gruel	970 g	5 g	Dark Brown	Small-pieces
In Decoction of Kulattha	960g	10 g	Dark Brown	Coarse Powder

**Observation:-**

Observation as per table no. 1:

- The red hot tamra churna, when immersed into liquids, makes a hissing sound.

**Table 2** Special (Vishesh) shodhana treatment of tamra

	Weight	Wt. loss	Colour	Physical Form
General (Samanya) Shodhita Tamra	960 g	-	Dark Brown	Coarse Powder
Special Shodhana no. 1	956 g	4 g	Dark Brown	Coarse Powder
Special Shodhana no. 2	954 g	2 g	Blackish	Coarse Powder
Special Shodhana no. 3	950 g	4 g	Blackish Red	Coarse Powder
Special Shodhana no. 4	948 g	2 g	Blackish Red	Fine Powder
Special Shodhana no. 5	946 g	2 g	Dark Brown	Fine Powder
Special Shodhana no. 6	942 g	4 g	Dark Brown	Fine Powder
Special Shodhana no. 7	940 g	2 g	Dark Brown	Soft & Fine Powder
Special Shodhana no. 8	938 g	2 g	Dark Brown	Soft & Fine Powder

**Observation:-**

Observation as per table no. 2

1. The red hot tamra churna, when immersed into sour gruel, makes a hissing Sound.

2. Sour gruel turned darker green.
3. Finally a soft & fine, dark Brown powder of specially shodhit tamra was obtained.

## DISCUSSION

- The shodhana treatments for minerals are dehydration, filtering, peeling, distillation, cleaning sorting, polishing, washing.
- Unprocessed or poorly processed tamra can cause symptoms like loss of appetite, vertigo, skin-diseases, epilepsy, impotency, renal calculus and even death.
- Hence, for further processing like incineration (Marana), tamra should only be used after subjecting to General and Special shodhana Treatments.
- Raw tamra, after general (samanya) shodhan treatments led to physical changes in the different stages.
- When tamra was purified with sesame oil, a weight loss of 10 g was seen and its colour changed from blackish to dark brown.
- In Butter milk, weight loss was 5 g. with no colour change of tamra.
- In Cow's urine, tamra lost 10 g. with a colour change from dark Brown to Blackish Red.

- A weight loss of 5 g. in sour gruel & that of 10 g. in decoction of kulattha was observed.

The heating until tamra got red hot and quenching into different liquids again and again led to colour changes in tamra. It also resulted into a reduction in hardness of tamra. Hence, thin sheets were converted to a coarse powder of tamra. This could be due to acidic media having different pH. The especially (vishesh) shodhita tamra loses a weight of 22 g, with colour changes. Ultimately, a dark brown, soft & fine powder was obtained. This may be due to repeated heating & quenching into Sour gruel.

## CONCLUSION

The total weight loss of raw tamra during general (samanya) shodhan was 40 g. (1000 g. to 960 g), colour changed from blackish to dark Brown; the thin sheets of tamra converted to coarse powder.

Tamra, after Special (vishesh) shodhana lost 22 g. (960 g. to 938 g.), colour changes were observed. However, hardness of tamra was remarkably reduced (Coarse powder turned to a soft & fine powder).

Hence, tamra should necessarily undergo General and Special shodhana Treatments

which makes it suitable for a further Process  
of Marana.

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