A UNIQUE PROCESS: CONCEPT OF SHODHANA

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ABSTRACT

Rasashastra deals with Parada that is Mercury and other Rasaadi dravya, which are classified under Dhatu, Ratna, Uparatna, etc. These drugs have high therapeutic value over the herbal drugs. All these drugs which come under Parthiva Varga have to be purified and converted into suitable dosage forms for the therapeutic use. If these drugs are not purified and the active principles are not modified, they may have deleterious effect over the body. So purification is an important step towards their safe and effective administration. Each of these drugs needs to be purified by various methods. To overcome these adverse effects and to make the drugs suitable for administration the drugs are subjected initially to a process known as Shodhana.

Shodhana can be broadly classified into Samanya & Vishesha Shodhana and also Saagni & Niragni methods. The Shodhita Rasoushadhis are either administered directly or may be subjected to further process like Marana, Satwapatana, Amrutikarana, Lohitikarana etc. There are specifications regarding duration of the process, specific drugs are to be used, etc. We can understand that our ancient seers mentioned different purification processes based on Physical & Chemical impurities & toxins. The changes in the raw material after purification are established scientifically by modern analytical parameters. So, the effort has been made to highlight the importance of Drug purification (Shodhana) on administration.

KEYWORDS: Purification, Impurities, Toxins, etc.
INTRODUCTION
Rasashastra is a science which deals with the usage of Metals, Minerals, Gem stones in health and diseases. Probably this science came into existence during 7th cen A.D. as it is well documented by ancient scholars of Alchemy about the impurities of these drugs. If at all these drugs are to be used as medicinal agents, initially they need to undergo a mandatory process known as Shodhana. Though Alchemy is not a branch of Ayurveda, Rasoushadhis have gained significant importance in the field of Ayurveda because of its less dosage, easy palatability & quick action. Ayurvedic physicians are using these medicines extensively in their day-to-day clinical practice. Now, here the question arises, whether these medicines are toxic. Answer would be no, because these drugs initially undergo a special & unique process known as Shodhana. It is a matter of fact that our ancient scholars of Alchemy were much aware of impurities & their adverse effects on their administration. In fact, while explaining the Metals & Minerals in classic literature, they have given a lot of importance on unpurified drugs & their side effects. Hence, the science of Alchemy strictly recommends that these drugs should be administered in purified form.

Definition
It is a process in which Kshalana(Washing), Mardana(Pounding), Bhavana(Levigation), Swedana(Boiling), Bharjana(Frying), Nirvapa(Heating & Dipping in specified liquids), etc are carried out on mineral drugs with a view to eliminate impurities.[1]

History
Indian Alchemy can be traced even from pre-vedic period. While explaining Samskara in the context of Ashtaahara vidhi visheshya ayatana (Rules & Regulations regarding intake of food) in Charaka samhita Vimana sthana 1st chapter, we could see only a brief description on Shodhana.[2] Eventually the scholars of Rasashastra gave immense contribution to Indian Pharmaceutics, in the form of various processes, use of different drugs, use of different equipments, duration of each processes etc. This clearly shows that the scholars have heavily emphasized on the process of Shodhana.

Shodhana - Not mere purification
The literal meaning of Shodhana may signify purification. But when we analyze from the point of alchemy it carries some scientific meaning. The term Purification indicates the state of purity. May be the drug is free from spurious substance, but as far as Alchemy is concerned, it cannot be used as a therapeutic agent. Because the concept of Purification & the
concept of Shodhana are entirely different and there is a huge difference which is being mentioned in Indian alchemy.

**Objectives of Shodhana**

When we analyze various methods of Shodhana described in different texts of Rasashastra, we can easily understand that they are advised with a specific intention.

They are:

1. Elimination of Physical & Chemical impurities.
2. Neutralization of toxins.
3. To Induce & Enhance therapeutic qualities.
4. To Impart Organic qualities.
5. To make Metals & Minerals suitable for administration.
6. To facilitate further process like Marana, Satwapatana, Lohitikarana, etc.

1. **Eliminates Physical & Chemical impurities**

As most of the drugs mentioned in Rasashastra are naturally available, they may contain many adulterants like stone, sand, mud, etc. Such foreign matter should be removed by the process of Shodhana.

Example

1. Shilajatu shodhana: As per classics, to separate physical matter, Shilajatu has to be washed from alkaline liquid medium, sour liquid medium, cow’s urine, etc.
2. Parada shodhana: It is a known fact that mercury contains Naga & Vanga which are obviously used as nil adulterants, they are chemical impurities can be removed by a special process known as Distillation.

2. **Neutralizes the Toxins**

Though the drug is free from Physical & Chemical impurities, most of the drugs of Rasashastra are toxic in nature. The unpurified drugs like Gandhaka, Tamra, Haratala, Manashila, Gouripashana, etc have got immense toxic symptoms on administration. Certainly these drugs produce some toxic symptoms on administration even when they are physically & chemically pure. Probably the drugs what we use as a purifying agent for the process of Shodhana, have such unique qualities which will neutralizes the toxicity of these drugs. Hence, these drugs it is mandatory to undergo for Shodhana process.
3. Enhances the therapeutic qualities of the drugs

Whatever the drugs are being used in the process of Shodhana, may it be herbs or animal products, and they themselves act as catalytic agent. These herbs and animal products can bring some desired changes in the drugs. Ayurvedically speaking this changes can be identified as gunantaradhana.

Example: Gandhaka Shodhana

In Gandhaka Shodhana, Gandhaka is melted with appropriate quantity of cow’s ghee & poured into cow’s milk through a clean cloth. Here, this particular method has been focused on physico-chemical impurities & also on toxins. Same time cow’s milk & cow’s ghee enhances the pharmacological properties of the Sulphur.[3]

4. Makes the Metals & Minerals suitable for further process

Most of the Metals & Minerals are basically hard in nature. They are to be administered in suitable form. These hard Metals & Minerals have to be converted into bhasma form by the process of Marana (Incineration), So, here the Shodhana plays a very important role by imparting brittleness & softness. Obviously, by this process which easily facilitates & fasten the process of Bhasmikarana. Hence Shodhana is highly beneficial in further process like Marana, Satvapatana, etc.

5. Brings Organic qualities

The aim of Rasashastra is to convert diseased body into healthy body, i.e dehavada. Most of the drugs in this science are Inorganic in nature. It is a known fact that the living beings are organic in nature. So, it clearly indicates that it is highly impossible to administer in their natural form. Hence, during purification process herbal drugs not only nullify the toxicity & modifies the active principles, but also brings organic qualities, which is highly necessary for administration.
I Classification

Shodhana

Samanya Shodhana
eg: Dhatu Shodhana
(Common method - Purification of Metals)

Visesha Shodhana
(Specific method)

II Classification:

Shodhana

Saagni
(With fire)

Examples:
1. Nirvapa
2. Dhalana
3. Bharjana
4. Puta
5. Swedana
6. Patana

Niragni
(Without fire)

Examples:
1. Bhavana
2. Prakshalana
3. Shoshana
4. Sinchana
5. Nimajjana
6. Gharshana
1. **BOILING**

2. **FRYING**

3. **LEVIGATION**

4. **DRYING**

5. **BURNING PROCESS**

6. **HEATING & DIPPING PROCESS**

**DIFFERENT PURIFICATION PHOTOS CARRIED IN AYURVEDIC PHARMACY**

<table>
<thead>
<tr>
<th>Sl no</th>
<th>Different Shodhana</th>
<th>Meaning</th>
<th>Examples</th>
<th>Changes after Shodhana</th>
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<tbody>
<tr>
<td>1</td>
<td>Nirvapa</td>
<td>Heating the drug &amp; dipping in specified liquid.</td>
<td>Abhraka shodhana</td>
<td>Brings brittleness &amp; softness.</td>
</tr>
<tr>
<td>2</td>
<td>Dhalana</td>
<td>Melting the drug &amp; pouring into the specified liquid.</td>
<td>Gandhaka shodhana</td>
<td>Separation of fat soluble impurities.</td>
</tr>
<tr>
<td>3</td>
<td>Bharjana</td>
<td>To fry</td>
<td>Kankshi shodhana</td>
<td>Water molecules will be evaporated.</td>
</tr>
<tr>
<td>4</td>
<td>Puta</td>
<td>Exposing the drug for fire</td>
<td>Swarna shodhana</td>
<td>Brings brittleness &amp; softness.</td>
</tr>
<tr>
<td>5</td>
<td>Swedana</td>
<td>Boiling the drug in specified liquid for a stipulated time,</td>
<td>Haratala shodhana</td>
<td>Toxicity will be reduced.</td>
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<td>6</td>
<td>Patana</td>
<td>Subjecting the drug to distillation</td>
<td>Parada shodhana</td>
<td>Lead &amp; Tin will be eliminated.</td>
</tr>
<tr>
<td>7</td>
<td>Bhavana</td>
<td>Grinding the drug with specified liquid medium for a stipulated time</td>
<td>Sasyaka shodhana</td>
<td>Particle size will be reduced.</td>
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<tr>
<td>8</td>
<td>Prakshalana</td>
<td>Process of washing</td>
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<td>It removes Spurious substance</td>
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DISCUSSION

By nature the drugs of Alchemy do contain lot of impurities and toxic. So, these are extremely toxic and fatal, if administered in their crude form. Hence, Shodhana is a preliminary step towards therapeutic administration. Shodhana is a process in which Physical & Chemical impurities & toxins will be removed. Historically the detailed description of shodhana can be traced in Rasashastra texts and got developed immensely during medieval period i.e 8th century onwards. Also we can see their types, duration, the drugs are being used, instruments, utensils during the process. This shows that the seers of Alchemy had immense knowledge about the purification and their mode of administration. Perhaps, very few drugs can be administered immediately after Shodhana. eg: Gandhaka, Gairika, Kankshi, etc. The process of Shodhana makes the drug suitable for further processes like Marana, Satwapatana, Lohitikarana, etc. Certainly, we can understand that there is a strong rationality between the method, duration, instruments and the drugs which are being used in the process of Shodhana.

CONCLUSION

Shodhana may remove Physical and Chemical impurities. It brings organic qualities. The drugs which are being used in the process of Shodhana may modify the active principles & enhance therapeutic action.

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