

SHODHANA PROCEDURE OF VARIOUS VISHA & UPVISHA IN AYURVEDA

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Article Received on
28 Dec. 2017,

Revised on 17 Jan. 2018,
Accepted on 07 Feb. 2018,

DOI: 10.20959/wjpr20184-11162

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ABSTRACT

Ayurveda, the science of life make remedial use of plant, animal and mineral source drugs. All the three sources of drugs can be separated in poisonous and nonpoisonous category. Several *Acharyas* have statement that not all medicinal plants are safe to use since they can bear many toxic and harmful phyto-constituents in them. The science is proficiency in the usage of *Visha Drvayas* (poisonous drugs) in therapeutics by subjecting them to a *Samskara* known as *Shodhana*. The role played by *Shodhana* process is to reducing the toxicity of the *Visha Dravya* has to be understood in a scientific way. *Shodhana Sanskara* (Purification process) of Poisonous plants before its therapeutic use is described in *Ayurveda* since the times of *Charaka Samhita* (1000 B.C. to 500 B.C.). *Sodhana* (Purification) is the

essential and most important pharmaceutical procedure for eliminate the impurities, which converts a poisonous drug into a therapeutically very effective medicine for various ailments. Different media are being used for processing the herbal poisonous drugs. Present paper gives the details of *Shodhana* process of various *Upvisha* (Mild Poison) in *Ayurveda*. Therefore understanding the role of *Shodhana* of *Visha Dravyas* is the need for present era.

KEYWORDS: Shodhana, Visha Dravya, Ayurveda, Upvisha.

INTRODUCTION

In *Ayurveda* plants are the primary source of medicine. A number of compounds have been isolated from medicinal plants and bring in use for the mankind; however most of these medicines have been withdrawn because of their toxicity or adverse effects.^[1] Various poisonous plants, mineral like *Bhanga* (*Cannabis sativa* Linn.), *Ahiphena* (*Papaver somniferum* Linn.), *Vatsanabha* (*Aconitum ferox* Wall.), *Kupilu* (*Strychnos nuxvomica* Linn. f.), *Dhattur* (*Datura metel* Linn.), *Parada* (mercury), *Gauripashana* (Arsenic), etc. have been used in *Ayurveda* medicine.^[2] Since ancient times different spices of plants having phyto-chemicals are still in use either in their crude form or after proper processing or *Shodhana*.^[3] The concept of *Shodhana* process was in practice since the time of *Charaka Samhita*. According to *Charak Samhita Suddhi Karna* (*Shodhana*) was also included in the measures claimed to be responsible for the alteration of the property of the drug while subjected to various pharmaceuticals treatments.^[4] *Acharya Charaka* mentioned that, any poison if processed or used properly is a potential medicine and any medicine if used improperly is a fatal poison.^[5]

Rasa shashtra elucidates processing of drugs by the name *Samskara*, which is proficient of alter the qualities of the drug. *Shodhana* is one such process used for *Samskarana* of drugs. Therefore in *Rasa-shastra* the *Shodhana* means a process of not only purification but also involves the detoxification and enhancing the efficacy of the drugs.^[6]

It is clear from the ancient literature that a single *Shodhana* process is not described for all the drugs or more than one process is described for a single drug. However, the *Shodhana* process described for various drugs differs depending on the *Guna* (nature) and *Dharma* (properties) of the drug.^[7]

AIM AND OBJECTIVES OF STUDY

The objective of the present study is to review the state of knowledge about the *Sodhana* process of many poisonous plants. The present review also describes up to date information regarding the different process of detoxification (*Sodhana*) in *Ayurvedic* system of medicines.

MATERIALS AND METHODS

All the traditional texts like *Charaka Samhita*, *Sushruta Samhita* was studied.

DISCUSSION

These plants classified into *Mahavisha* and *Upvisha* on the basis of its potency. Out of *Maha Visha Vatsanabh* is used for therapeutic purposes and *Upvisha* like *Arka*, *Karveer*, *Gunja*, *Snuhi*, *Kuchala*, *Jaypala*, *Dhatura*, *Bhallataka*, *Vijaya*, *Ahiphena*, *Langali* are used for therapeutic purposes.^[8] Ayurvedic poisonous plant listed in the schedule E of drugs and cosmetics Act 1940 and rule 1945.^[9]

Table 1: Shodhan of Visha Dravya (poisonous drugs).

Name of Drug	Shodhana Procedure
Ahiphena <i>Papaver somniferum</i> Linn.(except seeds)	Dissolved in water then filtered with cloth. After that mixed with <i>Godugdha</i> (cow's milk), heated in mild heat. This paste is triturated with ginger juice for 7 - 21 times, dried under shade ^[10]
Bhallataka <i>Semecarpus anacardium</i> Linn.(Seed)	1 st Method: Top portion of <i>Bhallataka</i> fruits should be removed with knife and mixed with brick powder (ishtika churna) and are kept in a <i>Pottali</i> (bag) and tie its mouth with a strong thread. This is rubbed gently by hands. When brick powder become wet with oil and skin of <i>Bhallataka</i> is unwrapped, it is washed with hot water. Obtain <i>Shuddha</i> (purified). ^[11] 2 nd Method: The After removing top part and cut in to two parts are placed in a <i>Pottali</i> . <i>Swedana</i> is done by filling it with coconut water for 1 to 2 h. in <i>Dolayantra</i> (swing apparatus). In this process it becomes <i>Shuddha</i> . ^[12]
Bhanga <i>Cannabis sativa</i> Linn. (Except seeds)	1 st Method: The leaves are tied in a cloth and soaked with water. This procedure has to be continued until the greenish colour stops discharge from the leaves. After this the leaves are dried under the shade, thereafter it should be fried in <i>Goghrita</i> (Cow's ghee) on mild fire and used for therapeutic purpose ^[13] 2 nd Method: <i>Swedana</i> (fomentation) in <i>Godugdha</i> (cow's milk) for 3 hours with mild then washed with water. After getting it dried, it is being fried in <i>Goghrita</i> ^[14] 3 rd Method: The <i>Bhanga</i> leaves are to be fomented in decoction of <i>Babbul Tvak</i> (Bark of <i>Acacia catechu</i>) for 25-30 minutes with moderate heat and then subjected to drying under direct sunlight. Further they are triturated with <i>Godudha</i> , derid and used ^[15]
Danti <i>Baliospermum montanum</i> Mull. Arg	<i>Danti</i> root is washed properly with water. It is smeared with a thin layer of paste prepared from a powder of <i>Pippali</i> (<i>Piper longum</i> Linn.) and honey then wrapped in the leaves of <i>Kusha</i> (<i>Desmostachya bipinnata</i>). The resultant was coated with mud and <i>Swedana</i> (Fomented). ^[16]
Dhattura <i>Daturametel</i> Linn.	1 st Method: Seed are kept a <i>Potali</i> , it should be <i>Swedana</i> (Fomented) in a <i>Dolayantra</i> by adding <i>Godugdha</i> (Cow's

	<p>milk) or <i>Gomutra</i> (Cow's urine) for 3 hrs. Then after seeds should be washed with warm water and dried in the sun. The seeds are used after removing the seed coat.^[17]</p> <p>2nd Method: Seeds should be kept in <i>Dolayantra</i> & <i>Swedana</i> is done using cow's urine for 3 hrs after that triturated in <i>Khalvayantra</i> & filtered through cloth.^[18]</p>
<p>Gunja <i>Abrus precatorius</i> Linn.(Seed)</p>	<p>Seeds are tied in a two layered cloth, kept suspended in cow's milk or <i>Gomutra</i> (cows' urine) or <i>Kanji</i> any one of these for <i>Swedana</i> taken in a <i>Dolayantra</i>. The suspension is boiled with the <i>Gunja</i> seed pack suspended for 1 <i>Yama</i> (3 hours). After this, the seeds are taken out, washed in hot water, dried and preserved.</p>
<p>Jaipala <i>Croton tiglium</i> Linn</p>	<p>1st Method: Remove the physical impurities of seeds, washed with water and then dried in shade. The outer covering of seeds is removed. After that cotyledons are separated carefully to remove the radical with the help of a knife. The seeds are tied in a <i>Pottali</i> and subjected to <i>Swedana</i> for 3 hours and three times in <i>Dolayantra</i> by using <i>Godudha</i> (Cow's milk). Therefore it is purified.</p> <p>2nd Method: Without seed coat and radical, <i>Jaipala</i> seeds are taken and mixed with the 8th part of <i>Suhaga</i> (Borax), after tied in a <i>Pottali</i>, subjected to <i>Swedana</i> for 6 hours in <i>Dolayantra</i> by using <i>Godudha</i> (Cow's milk).^[20]</p>
<p>Karaveera <i>Nerium indicum</i> Mill.</p>	<p>Roots of <i>Karaveera</i> are purified by <i>Svedana</i> process in <i>Dolayantra</i> using <i>Godudha</i> for 3 hours. After <i>Sodhana</i>, the roots are washed with water and dried.^[21]</p>
<p>Langali <i>Gloriosa superba</i> Linn.</p>	<p>1st Method: Fresh <i>Langali</i> root and seed is immersed in <i>Gomutra</i> (cow's urine) for 24 hours then washing with warm water. By this process it is detoxified.^[22]</p> <p>2nd Method: Cut small pieces of <i>Langali</i> should be kept in sour buttermilk for seven days in earthen pot and then dried in sun. After that, collected in a glass jar and used for therapeutic purpose.^[23]</p>
<p>Snuhi <i>Euphorbia neriifolia</i> Linn.</p>	<p>The milk of <i>Snuhi</i> is collected and mixed with the juice of <i>Imli</i> (Tamarind), put it into a vessel and let them dry in direct sun light. After proper drying it should be used for.^[24]</p>
<p>Kuchala <i>Strychnos nuxvomica</i> Linn.</p>	<p>1st Method: <i>Kuchala</i> seeds shall be immersed in <i>Gomutra</i> (cow's urine) for 7 nights; fresh <i>Gomutra</i> is to be replaced every night. Thereafter, it is removed and washed with water. Seeds shall be further detoxified by <i>Swedhana</i> boiling with <i>Godudha</i> (cow's milk) in <i>Dolayantra</i> for 3 h. The seed coat and embryo are removed. The cotyledon shall be fried in cow's ghee and powdered well.</p> <p>2nd Method: The seeds are fried in cow's ghee by slow heating; separate the outer covering of seeds and warm cotyledon are finely powdered and used.</p> <p>3rd Method: Ripped seeds of <i>Kuchala</i> are immersed in <i>Kanji</i> (butter milk) for three days. After three days the outer shell should be peel off, dried in sun light, powered</p>

	well and collected in a glass jar. ^[25]
Vatsnabh <i>Aconitum ferox</i> , Wall.ex Ser./ <i>Aconitum chasmanthum</i> Stapf.ex Holmes	The roots of <i>Vatsnabh</i> were cut into small pea-sized pieces and tie in a <i>Pottali</i> . It can be detoxified by placing it in cow's urine for three consecutive days, or by <i>Swedana</i> it in cow's milk or goat's milk in <i>Dolayantra</i> for three to six hours. After that pieces of <i>Vatsnabh</i> is washed with warm water and used for therapeutic purpose. ^[26]
Sarpvisha (Snake Poison)	<i>Shuktika</i> (Conch shell) is to be taken and make oiling in the inner part. <i>Sarpavisha</i> are kept in between, mixed with the fourth part of mustard oil and let them dry in the sun. After drying in the sun its colour changes into yellow and kept in a jar with caution ^[27]
Gauripashana (Arsenic)	<i>Gauripashana</i> and <i>Karela</i> (Bitter guard) are procured and <i>Gauripashana</i> is crushed into small pieces. The incision is done on <i>Karela</i> (Bitter guard) and seeds are removed. The small pieces of <i>Gauripashana</i> are placed into the <i>Karela</i> (Bitter guard) and tied by white thread and kept into <i>Dolayantra</i> which is filled with Bitter guard decoction. <i>Dolayantra</i> is kept on mild flame for 4 hours. After 4 hours <i>Gauripashana</i> collected from Bitter guard washed with hot water, shade dried, by this process it should be purified and used for therapeutic purpose. ^[28]
Hartala (Arsenic trisulphide)	1 st Method: Fine powder of <i>Haratala</i> (Arsenic trisulphide) is boiled in <i>Dolayantra</i> with any one of the juice of <i>Kushmanda</i> (Benincasa hispida) or <i>Tilakshara</i> (ash of Sesamum indicum) or <i>Churnodaka</i> (lime water). 2 nd Method: The small pieces of <i>Haratala</i> should be added with one tenth part of <i>Tankana</i> (Borax) and washed with lemon juice and <i>Kanji</i> (gruel). After tht a <i>Pottali</i> (bolus) is make and <i>Swedana</i> in lime water and <i>Kanji</i> throughout a day in <i>Dolayantra</i> . 3 rd Method: <i>Patra Haratala</i> is purified by giving to <i>Bhavana</i> (grinding) for seven times with <i>Churnodaka</i> (lime water) ^[29]
Parada (Mercury)	Genuine raw drugs are selected only after proper purification. Many methods of <i>Sodhana</i> are prescribed in our texts, but the method, which is easy, effective and practicable, is followed here. Mercury is generally purified by triturating it with lime, <i>Lashuna Swarasaa</i> (Garlic juice), <i>Suhaga</i> (Borax), <i>Paan Juice</i> (Betel leaf), decoction of <i>Triphala</i> , <i>Saindhav</i> or other reference mentioned in our texts can be used. ^[30]
Tuttha (Copper sulphate)	1 st Method: Purified by <i>Bhavana</i> (Grinding) with lemon juice for 6 hrs or with <i>Raktachandan Manjishtha Qwatha</i> (Decoction) for 7 times or <i>Bhavana</i> with <i>Amlavarga Dravya</i> for 7 times. 2 nd Method: Tied in a <i>Pottali</i> and kept in <i>Dolayantra</i> filled with <i>Gomutra</i> for <i>Swedana</i> . <i>Tuttha</i> is settled down in <i>Dolayantra</i> heated again. Let them cold, after 2-3 h. it can be collected from the bottom of the <i>Dolayantra</i> . ^[31]

CONCLUSION

From this study it may be concluded that drugs contains toxic alkaloids which may be purified by above methods and after proper *Shodhana* (purification) used for various therapeutic purpose. As we know very well that even a strong poison can be converted in to an excellent medicine if processed and administered properly but if handled inaccurately, it may become dangerous.

Modern researches also proved the effect of poisonous plants in treating ailments. *Ayurveda* emphasize the use of *Visha* in various formulations as well as used as a single drug which suggests its dignified importance in medical practice. It is good to admit *Shodhan* processes as mentioned in ancient texts with modern technology to assess it safety and efficacy. Specific media (*Bhavna Dravya*) also has an significant role in making a drug without side effect. So it causes the drug to become nectar if method of *Shodhan* is appropriate.

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