Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 9, Issue, 08, pp.56267-56271, August, 2017

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

ISSN: 0975-833X

RESEARCH ARTICLE

SHODHANA OF VISHADRAVYA W.S.R.T. VATSANABHA SHODHANA AND BHALLATAKA SHODHANA

***Bodhakar Kishor, N.**

Lecturer, Department of Rasashastra-Bhaishajyakalpana, Bhausaheb Mulak Ayurved Mahavidyalaya, Nandanvan, Nagpur, Maharashtra, Pincode - 440009, India

ARTICLE INFO

Article History:
Received 20th May, 2017
Received in revised form
04th June, 2017
Accepted 30th July, 2017
Published online 31st August, 2017

Key words:

Shodhana,
Vishadravya,
Gomutra,
Vatsanabha,
Bhallataka,
Detoxification.

ABSTRACT

A substance which causes sadness to the world is also called as *Visha* (Poison). Plants are the prime source of medicine in *Ayurveda*. Several compounds have been isolated from medicinal plants and introduced for the service of mankind; however most of these medicines have been withdrawn due to their toxicity or side-effects. In Ayurveda, the very first stage of purification is called Shodhana. Chemical purification is different from this purification. In chemical purification, there is only elimination of foreign matter, however, Shodhana eliminates harmful matter, modifies or converts undesirable properties to desirable, enhanced therapeutic actions. Current study shows the changes in *vishdravya* after *shodhana*. Toxic content of *Vatsanabha* (Aconite, monks hood) is alkaloids which varies from 0.63 – 4.7%. The total Alkaloid in *Ashuddha Vatsanabha* was 0.45% w/w and after *Shodhana* in *Gomutra*, it was reduced to 0.08% w/w. Mild oil remained in *Bhallataka* (Semicarpus Anacardium, marking nut) after *shodhana* and phonolic constituents positive in *ashuddha Bhallataka* which turns to negative after *shodhana* done by *Ishtikachurna* (brick powder), *gomutra* (cow urine), *godugdha* (cow milk) and *narikeljala* (coconut water). So the *Shodhana*is an important procedure for *vishadravya* to get desired effects from them.

Citation: Bodhakar Kishor, N. 2017. "Shodhana of vishadravya W.S.R.T. vatsanabha shodhana and bhallataka shodhana**"**, *International Journal of Current Research*, 9, (08), 56267-56271.

INTRODUCTION

Vishadravya (poisonous drugs) may be defined as a substance which is life threatening or produces many other complications and brings about sadness. In *Ayurvedic* classics, after proper processing, many *vishadravyas* are used as *aushadhadravya* (medicine) because, dose differentiates a drug from poison, a medicine at one dose, can serve as *visha* or poison at the other. According to *Charaka* even an acute poison can become an excellent drug if it is properly administered, and similarly even a drug, if not properly administered, becomes an acute poison (AgniveshaCharakasamhita part IShriSatyanarayan Shastri Chaukhamba Bharati Academy 22nd publication 1996). These poisonous or toxic plants are categorized as viṣa (poison) and upaviṣa (toxic but not lethal for human health) in *Ayurvedic* texts and also listed in the schedule-E of Drugs and Cosmetics Act 1940. Hence to promote and introduce their use for medicine, such plant drugs must be detoxified or purified before their use. The detoxification or purification process of any toxic material used for medicinal purposes is termed as "Shodhana". In Ayurveda, since the times of *Charaka Saṃhita*, Shodhana is in practice but its use expanded with the development of Rasashastra since 8th century CE. The concept of Shodhana in *Ayurveda* not only covers the process of purification or detoxification of physical as well as chemical impurities but also covers the minimization of side effects and improving the potency and therapeutic efficacy of the purified drugs. By Shodhana, toxic constituents from plants are either removed or made less toxic before their use in the formulation. However the Shodhana process requires treatment of such products with cow dung, cow urine, and cow milk, requires sunlight and special containers like *Dolayantra. Vatsanabha* is a poisonous plant drug used as medicine in *Ayurveda*. It is used after proper *Shodhana* process by various media like cow's urine, cow's milk, goat's milk, *Triphalakwatha*, etc. Cow's urine is better media for *Shodhana* of *Vatsanabha. Vatsanabha* is an herb used as an ingredient in many *Ayurvedic* medicines. It is a poisonous herb, butafter purification when used in smaller quantities acts as medicine and it has many health benefits. *Bhallataka* fruit is used to treat various diseases in *Ayurveda*. Earliest references of this drug are available since *vaidic* period. *Acharya Charaka* mentioned ten formulations of *Bhallataka* especially for rejuvenation (Agnivesha Charakasamhita part II Kashinath Shastri Chaukhamba Sanskrit Sansthan sixth edition 2000). Though the *Bhallataka* fruit is having many therapeutic values, pharmacies are scared to use this drug because of its irritant nature. It is stated that,

******Corresponding author:* **Bodhakar Kishor, N.**
Lecturer, Department of Rasashastra-Bhaishajyakalpana, Bhausaheb Mulak Ayurved Mahavidyalaya, Nandanvan, Nagpur, Maharashtra. Pincode - 440009, India.

Bhallataka must be purified (*shodhita*) before administering to the patients. *Shodhana* is a process by which unwanted impuritiesare separated from the substance by various pharmaceutical methods like boiling, frying, washing etc. with specific media, thereby minimization the toxicity level of the substance. Different *shodhana* processes are mentioned in *Ayurvedic* classics for the drug *Bhallataka*, but it is difficult to follow these methods in large scale purification. Here an attempt has been made to analyse the impact of *shodhana* on *vishadravya* pharmaceutically and analytically.

MATERIALS AND METHODS

All the ingredients needed for *Vatsanabhashodhana* and *Bhallatakashodhana* were taken according to their *Grahyalakshana* before *shodhana* process.

Procurement of raw material- *AshuddhaVatsanabha* and *Bhallataka* were collected from local market, Itwari, Nagpur. *Bufello dung* and *Gomutra* (cow's urine) was collected from the *Goshala*, Nagpur. Place of study for *Shodhana* of *Vatsanabha* and *Bhallataka* was Govt. Ayurved College, Nagpur and Analysis were done at Qualichem Laboratory, Gokulpeth, Nagpur.

***1)Vatsanabha Shodhana* (Sadanand Sharma Rasatarangini Kashinath Shastri Motilal Banarasidas, 2007)**

Reference-*Rastarangini* 24/ 20-21
Equipments- *Mritpatra,* steel plate, knife etc.
Ingredients- 1) *Ashuddha Vatsanabha*-400 gram
2) *Gomutra*- 5 litre
3) Hot water- 1 litre

Procedure

Firstly *AshuddhaVatsanabha* was washed with water and dried. Then *Gomutra* was taken in an *Mritpatra*, *Vatsanabhakanda* was dipped in it. Then this *Mritpatra* was kept in sunlight. On next day, the *Gomutra* in the pot were taken out and new *Gomutra* added. Same procedure was repeated for 3 days. On 4th day, *Vatsanabhakanda* were saperated from *Gomutra* and washed with hot water. Then External layer of *Vatsanabhakanda* were separated by knife. After that *Vatsanabhaparikshana* done with the help of needle and made chips of *Vatsanabha* anddried in sunlight. *Vatsanabhakanda* which not passed the *pariksha* was again dipped in *Gomutra.* Then the dried chips of *Vatsanabha* were grinded in mixer grinder to form powder. *Vatsanabha* powder was packed in air light container.

Duration-7 days

Observation-

- Consistency-Soft
- Colour-yellowish brown powder (almond)
- Odour-*Gomutragandhi*
- Colour of Media-*Gomutra*- Dark Red
- Weight after *Shodhana*-300 gram
- Total loss of Weight-100 gram

Causes of Weight loss

External layer removed. While cutting, the damaged and discoloured portion removed.

Precautions

Fresh *Gomutra* was poured every day. *Vatsanabhakanda* through which needle did not passed, again dipped in *Gamutra* for *Shodhana*.

***2)Bhallataka Shodhana* (Sadanand Sharma Rasatarangini Kashinath Shastri Motilal Banarasidas publication 2007)**

References: *Rasatarangini* 24/477-479
Equipments- Gas stove, *Mritpatra, Dolayantra,* steel plate, knife, etc.

Ingredients-

1) *AshuddhaBhallataka*-500 gram
2) *Ishtikachoorna*-1750 gram
3) *Buffelo*dung- 4.5 litre
4) *Gomutra*-4.5 litre
5) *Godugdha* -4.5 litre
6) *NarikelaJala*-4.5 litre
7) Hot water- 5litre

Procedure

1) With *Ishtika Churna*-(Brick powder)

The fruits which were submerged in water, selected for *shodhanasanskar* while the floating fruits were discarded. Receptacles of selected *Bhallataka* fruits were drawn out after three days and all fruits were cut near receptacle under water with sharp cutter in two pieces. The weight of *Bhallataka* fruit was 350 grams. These fruits were rubbed with brick powder. This cloth bag was kept under observation for next 24 hours. After 24 hours brick powder turned black. *Bhallataka* fruits were then separated and further rubbed with same quantity of brick powder. The process was repeated on second and third day, where the change in colour of brick powder were dark maroon and as original brick powder respectively. Hence the process stopped here. *Bhallataka* fruits sorted, rinsed with water and dried.

2) *Shodhana* in Buffelo dung mixed with water, *Gomutra, Godugdha* and *Narikeljala*

Bhallataka fruits total weight was near about 325 gm. *Dolayantra* was assembled in earthen pot having capacity 5 liter. The *Pottali* of *Bhallataka* was suspended to iron rod on the mouth of pot in such a way that it did not touch the bottom of pot and swinging and submerged in liquid media. The pot was heated to boil gently in *buffelo dung* mixed with water for 3 hours. *Buffelo dung* mixed with water was added frequently to maintain level. This in turn increase the heating by ½ hour as it decreases the temperature of *Shodhanadravya.* Hence total 3 ½ hours heating was given. After this *Bhallataka*fruits were drawn out, washed with hot water and dried.Same method was applied for the *Bhallatakashodhana* by using *Gomutra, Godugdha and NarikelaJala* as a *shodhanadravya*. At last they were washed with hot water and dried in sunlight. Dried *Bhallataka* fruits crushed to make powder and filtered through piece of cloth to get fine powder. All above mentioned processes detoxified *Bhallataka* fruits by removing its poisonous oil and making it more suitable for medicinal use.

Duration- 17 days

Observation

- Consistency-Soft
- Colour-Black powder
- Odour-*Gomutragandhi*
- Weight after *Shodhana*-275 gram
- Total loss of Weight-225 gram

Causes of Weight loss

Floating *Bhallataka* fruits were not taken for *shodhana*. Receptacles of *Bhallataka* fruits was removed during *shodhana.* External layer removed during *shodhana*. While cutting, the damaged portion was removed. Maximum amount of oil extraction takes place during *shodhana*in *Ishtikachoorna and Gomutra.*

Precautions

Pottali should be dipped completely in each liquid media, but should not touch the bottom. The level of *shodhanadravya* in *Dolayantra* should be maintained as it goes down during heating. *Shodhana* was done on *mandagni*. All body covered during *shodhana*.

OBSERVATION AND RESULTS

During *Vatsanabha Shodhana*, on 2nd day, *Vatsanabhakanda* were swollen and soft in consistency. The colour of *Gomutra* became dark red after *Shodhana.* The needle was passed easily through the *Vatsanabhakanda* after *Shodhana.* The layer of *Vatsanabha* was separated easily after *Shodhana* and it possess *Gomutragandha* and yellowish brown colour. *Ashuddha Bhallataka*was grayish black in colour with receptacles. Maximum oil extraction takes place during *shodhana* in *Ishtikachoorna and Gomutra.*After *Shodhana, Bhallataka* becomes soft, *Gomutragandhi* and black in colour. Weight loss was because of removal of receptacles and oil extraction during *shodhana* procedure. Mild oil remained in *Bhallataka* after *shodhana.*

DISCUSSION

Visha and *Upvisha* are used in *Ayurvedic* formulations for the quick action and to get fast results, but before that *Shodhana* mandatory. Mostly *Godugdha* and *Gomutra* are used for *Shodhana* because of their *Vishaghna Prabhava*. The *Gunas*of *Gomutra* and *Godugdha* are contrast of *Visha. Vatsanabha Shodhana* was done in *Gomutra* as per classical text. According to Modern science the toxic content of *Vatsanabha* is Alkaloids which varies from 0.63 – 4.7%. The total Alkaloid in *Ashuddha Vatsanabha* was 0.45% w/w and after *Shodhana* it was reduced to 0.08% w/w which was 5½ times less than *Ashuddha Vatsanabha*, it means that although *Shodhana* of *Vatsanabha* looks simple process but the results were significant. It justifies the *Vishaghnaprabhava* of *Gomutra.* It means that *Gomutra* contains some enzymes which reduce the toxic alkaloids of *Vatsanabha.* The analytical test was

Table 1. Physical Analysis of *Vatsanabha*

Vatsanabha	*Shabda*	*Sparsha*	*Rupa*	*Rasa*	*Gandha*
Before *Shodhana*	-	*Khara, Kathina*	Externally dark brown *Gostanakar*	-	-
After *Shodhana*	-	*Snigdha, Mrudu*	Whitish, light brown	-	*GomutraGandha*

Table 2. Physical Analysis of *Bhallataka*

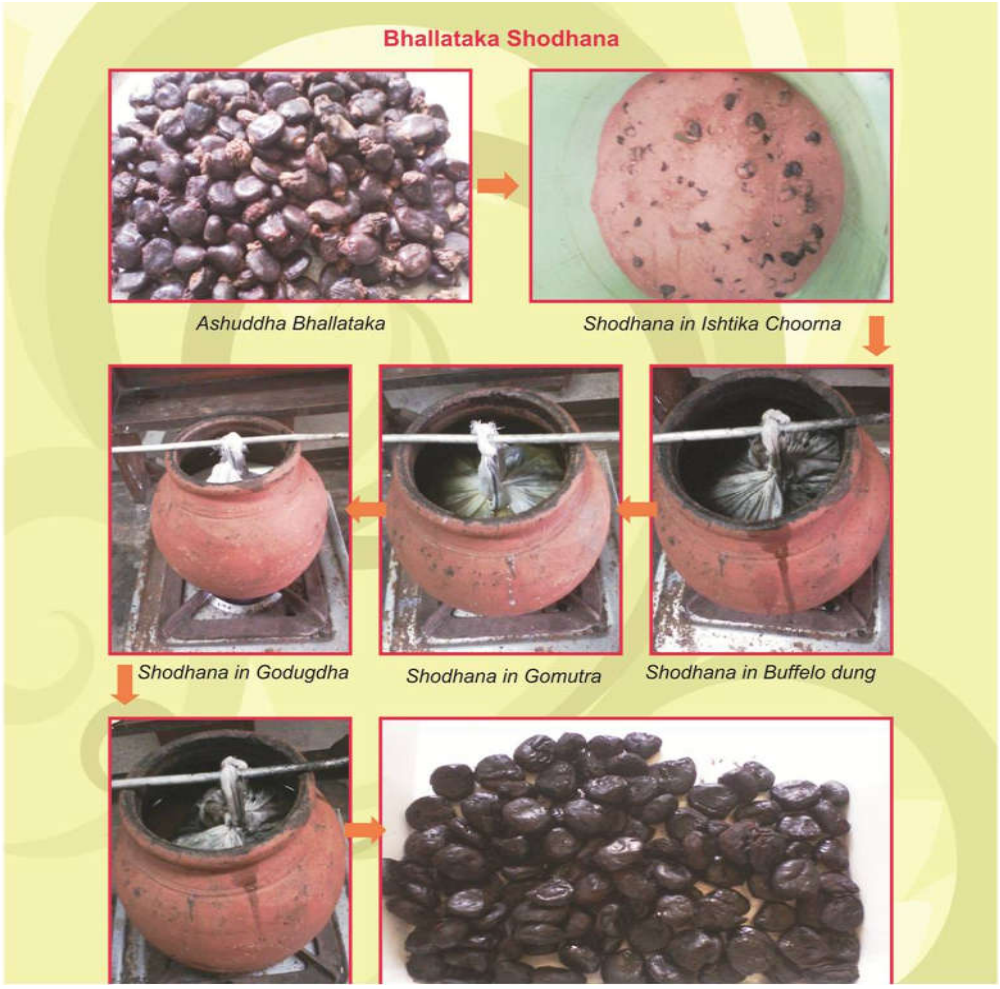
Bhallataka	*Shabda*	*Sparsha*	*Rupa*	*Rasa*	*Gandha*
Before *Shodhana*	-	*Khara, Kathina*	Externalygrayish Black (Heart shape)	-	
After *Shodhana*	-	*Snigdha, Mrudu*	Black (internally brownish black)	-	*GomutraGandha*

Table 3. Results of Raw Material Study

Sample	Test	Value
Impure *Vatsanabha*	Total alkaloids	0.45% w/w
Impure *Bhallataka*	Foreign matter	0.84% w/w
	Loss on Drying	2.47% w/w
	Total ash	3.76% w/w
	Acid insoluble ash	0.41% w/w
	Water soluble extractive	6.14% w/w
	Alcohol soluble extractive	13.10% w/w
	Fatty Acids	36.12% w/w
	Unsapnifiable matter	2.31% w/w
	Phenolic constituents	Positive

Table 4. Results of Analysis of *Shodhita Vatsanabha and Shodhita Bhallataka* (HonwadSudhindra, 2012)

Vishadravya	Test	Value
ShodhitaVatsanabha	Total Alkaloids	0.08% w/w
ShodhitaBhallataka	Foreign matter	0.89% w/w
	Loss on Drying	3.10% w/w
	Total ash	3.95% w/w
	Acid insoluble ash	0.44% w/w
	Water soluble extractive	5.11% w/w
	Alcohol soluble extractive	11.05% w/w
	Fatty Acids	38.49% w/w
	Unsapnifiable matter	1.86% w/w
	Phenolic constituents	Negative



carried out to check authentification of *Vatsanabha*. *Shodhana* of *Vishadravya* means to make it *Sharir-satmya* by altering their properties. Ancient *Acharya* had nicely designed the *Shodhana* procedure so that it show therapeutic action and does not show any poisonous action. *Bhallatakashodhana* was done as per classical text. *Ashuddha Bhallataka* was grayish black in colour with receptacles. Maximum oil excretion takes place during *shodhana* in *Ishtikachoorna and Gomutra.*

Weight loss was because of removal of receptacles and oil extraction during *shodhana* procedure. *Shodhana of Bhallataka* was done in *Ishtikachoorna*, Buffelo dung, *Gomutra, Godugdha* and *Narikelajala* which removes the toxic oil percentage in *Bhallataka* and made it therapeutically useful. When such *shodhanasanskara* carried out, *Bhallataka* poses properties like *Rasayana, Yogavahi, Tridoshaghna*. Mild oil remained in *Bhallataka* after *shodhana.* After *Shodhana*

Bhallataka becomes soft, *Gomutra Gandhi* and black in colour. The fatty acids in *Ashuddha Bhallataka* were found in 36.12%w/w which was within normal limits. Above results shows that raw material selected was authentic. Maximum weight loss of *Bhallataka* takes place during *shodhana* in *Ishtikachoorna* and *Gomutra.* The water soluble, alcohol soluble extractive and unsapnifiable matter was less in *Shuddha Bhallataka* than *Ashuddha Bhallataka*. Fatty acids increases in *Shuddha Bhallataka* by 2.37% than *Ashuddha Bhallataka* suggests *shodhana* carried out in *Godugdha* successfully.

Acknowledgement

I am sincerely thankful to our honorable Dean, Dr. Prakash H. Khaparde, G.A.C., Osmanabad, our honorable Guide Dr. R. M. Khiyani, Asso. Prof., Rasashastra-Bhaishajyakalpana Department, Govt. Ayurved College, Nagpur and all Teaching staff of Rasashastra-B.K. department for their friendly guidance, inspiration, kind cheerfulness, invaluable advice & moral support during entire course of my post graduate studies and for shown me way at my weaker points and for their generous co-operation, research freedom and ceaseless interest in our research work. I am also thankful of all the persons and institutions that have been helpful knowing or unknowingly during this study. I am releasing the limitations of language and words while acknowledging my heartly gratitude towards love, care, affection, encouragement of my beloved wife Preeti, family members and friends.

REFERENCES

Agnivesha Charakasamhita part I Shri Satyanarayan Shastri Chaukhamba Bharati Academy 22nd publication 1996 Varanasi Sutrasthan Adhyay 1/127-128 pg 49.

Agnivesha Charakasamhita part II Kashinath Shastri Chaukhamba Sanskrit Sansthan sixth edition 2000 Varanasi Chikitsasthan Adhyay 1 paad 2/ 13 pg 49.

Honwad Sudhindra V., editor, Handbook of Standerdization of Ayurvedic Formulations, 1st ed. Chaukhamba Orientalia 2012 Varanasi, Pg. 201-217.

Sadanand Sharma Rasatarangini Kashinath Shastri Motilal Banarasidas publication 2007 Delhi Tarang 24/22 pg 652

Sadanand Sharma Rasatarangini Kashinath Shastri Motilal Banarasidas publication 2007 Delhi Tarang 24/477-479 pg 735

****