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REVIEW OF UPVISHA VARGA AND ITS SIGNIFICANCE IN RASASHASTRA

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ABSTRACT

Rasashastra is a science which uses heavy Metals, Minerals, Gems, Poisonous herbs as medicines in day to day practice. It is evident from the treatises of Rasa-shastra that many poisonous herbs are used along with metals and minerals to form compounds which are therapeutically beneficial, quickly absorbable, which can yield maximum efficacy in minimum dose. Upavisha varga (poisonous herbs) are used in various Ayurvedic formulations. Even an acute strong poison can act as an excellent medicine if it is properly prepared and administered. Many questions have been raised on use of these materials in medicine like toxicity, Standard manufacturing processes, Standardization of finished product and Therapeutic dose of these drugs.In this study an review has been done on the mentioned questions with the help of systematic study of classical texts, research papers and related articles. From the study it is evident that upavisha varga is elixir of Ayurveda if converted into standardized dosage form and used in therapeutic dose.

KEY WORD : Upavisha varga, Poisonous herbs, Toxicity.

INTRODUCTION

Visha word is derived from the root ‘vis’ (vyaptau) having ‘kt’pratyaya which means to encompass or to get fully occupied.Visa dravya can get circulated in the whole body immediately after ingestion.

Drugs which on internal use produces a sense of sadness, sorrow, and depression in the minds of mankind, hence they are known as Visha – “Visada jananatvisani”[1] It may cause death also. Visha is a substance which produces very harmful effects on mind and body. The synonyms of Visha is Halahal, Garala, Kalkuta, Brahmputra, Darada, Kakola, Malina and Kambal.[2]

Legally these substances are known as toxic substance. According to Indian pinal code the terms is stupefying, intoxicating etc. Less toxic substance are labelled as “harmful’’ or ‘’irritant”. Act 1919 regulates the definition of visha, i.e. any substance which is deleterious to human body to inhale, to swallow or to receive into blood.

Chronological evolution of Upvisha Varga

According to Egyptians many poisonous drugs are studied as early as 3000 BC. In Srimadabhagwat the origin of Visha and Amrut are described during ocean churning.[3] The conversation between Dhanvantari and Nagadevi which gives information about condition of Vishachikitsa in Brahmavaivarta puran (3/51) at that time 600 to 7oo A.D. In Atharvaveda (1500BC) Sthavara and Jangama poisons are described.

In Charak samhita poison is described in chikitsa sthan.[4] Sushruta (350BC) described fundamental classification of poison in kalpa sthan.[5] According to Vagbhata’s classification of visha are Sthavara, Jangam and Gar visha (artificial poison).[6] In Rasatarangini, the visha dravya are classified on the basis of origin in two types i.e. Sthavara (plant and mineral origin) and Jangama (Animal origin). As per Rasashastra literature the visha drug are classified upon to nature in two subgroups i.e Vihsa and Upavisha on the basis of their severity and virulence. Sthavar visha are divided in two types Mahavisha-and Upavisha.[7]

Visha Adhisthan as mentioned in Granthas are for Sthavar Visha -Mula, Patra, Phala, Puspha, Twak, Sheer, Niryas, Kanda,etc and for Jangama Visha – Drusti, Shwasa, Nahka, Mutra,Purisha, etc.[8]

Procurement of upvisha varga should be done in fruiting season.It should be newly grown, posses Snigdha(smooth), Ghana (solid), and guru guna (heavy)

Table I: Number of upavisha according to various grantha.

Sr.No	Name of Grantha	Number
1	Rasarnava	5
2	Rasasanket kalika	6
3	Rasendrachudamani	7
4	Rasaratna samucchya	7
5	Rasendrachintamani	7
7	Ayurved prakash	7
8	Yogaratnakara	7
9	Rasendra sarasangraha	7
10	Rasatarngini	11

Preservation method of Vishadravya-– Shudha visha should be tied in a cloth smeared with oil of red mustard seeds.[9]

General dose of visha is 1 tila matra to 8 yava.[10] (8mg to 500mg).

According schedule E – NO.OF POISONOUS SUBSTANCES

A. Drugs of Vegetable origin – 13.
B. Drugs of Mineral origin – 9.
C. Drugs of Animal origin – 1.

Visha and Upavisha dravya if used with proper care and in proper doses may prove highly beneficial to prove life saving drugs like an Amrita (Nectar).

Role of Upvisha varga in Rasashastra

1) Specific pharmacological actions - Bio-active principles of poisonous plants are equally potent and competent to act and react with Rasa drugs.
2) Effect - Exhibit with smallest dose within short time periods.
3) Qualities - Their identical and competent qualities.
4) Toxicity -Poisonous herbs are toxic to human beings, when used without purification. It is mandatory for safe, prolonged therapeutic effect.
5) Poisonous plants after purification with discrimination prove as BOON not BANE in promoting health, developing immunity, preventing aging and curing disease and they can act as best rejuvenators and life saving drugs.

Table II: Upvisha dravya in various Rasa-grantha.

Sr No	Name of Dravya	R.T	R.A	R.Chi	R.R.S	R.Chud	R.S.Sa	A.P	Y.R
1	Snuhi Ksheera (Euphorbia nerifolia)	+	+	+	+	_	+	+	+
2	Arka Ksheera (Calotropis procera)	+	+	+	+	+	+	+	+
3	Dhattura (Dhatura stromonium)	+	+	+	+	+	+	+	+
4	Karaveera (Thevetia nerifolia)	+	+	+	+	+	+	+	+
5	Langali (Gloriosa superb)	+	+	+	+	+	+	+	+
6	Vishamushti (Kuchala) (Strychnos nuxvomica)	+	_	_	_	+	_	_	_
7	Vijaya (Cannabis sativa)	+	_	_	+	+	_	_	_
8	Gunja (Abrus precatorius)	+	_	+	_	_	+	+	+
9	Ahiphena (Papaver somniferum)	+		+	_	_	+	+	+
10	Bhallataka (Semicarpus anacardiun)	+	_	_	+	+	_	_	_
11	Jayapala(Croton Tiglium)	+	_	_	_	_	_	_	_

R.T-Rasatarangini,R.A-Rasarnav,R.Chi-Rasachintamani,R.R.S-Rasaratnasamucchay, R.S.K-Rasasanket kalika, R.Chud-Rasendra Chudamani R.S.Sa-Rasendrasarsanghra, A.P-Ayurved Prakash, B.P-Bhavprakash, Y.R-Yogratnakar.

Comparison of Visha and Ojus

In Ayurveda the toxic properties of Visha Dravya are opposite to Oja are said to be Therefore it is responsible factors for their toxic effect. Acharya Charaka and Sushruta have enumerated ten similar guna of visha.[11] Acharya Vagbhata has Attributed eleven guna by including Apaki and Avyakta rasa.[12] In Sharangdhara samhita Chhedi, Madavaha, Jivitahara and Yogavahi guna are stated.[13]

Table III: Properties of Visha and Ojus.

Sr.No.	Visha	Oja
1	Laghu	Guru
2	Rooksha	Snigdha
3	Ushna	Sheeta
4	Tikshna	Mrudu
5	Sukshma	Sthula
6	Ashukari	Prasad
7	Vyavayi	Sthira
8	Vikasi	Shlakshna
9	Vishada	Picchila
10	Apaki	Madhura

According to table properties Laghu, Sukshma,Vishada and Ashukari guna of Visha are responsible for the quick spreading and influencing even to the smallest part of the body. Due to Rooksha and Laghu guna aggravates Vata dosha. The qualities like Laghu and Rooksha guna of visha aggravates vata. Its Ushana and Teekshna guna provoke Pitta and Rakta resulting in Daha,Moorcha Trishna etc[13]. S.K.2/20-22. Visha having opposite qualities of Ojus destroys it and becomes lethal. Visha destroy Oja and become lethal due to opposite qualities.

According to modern science the concept of toxic effect of poisonous plants are said to be on the basis of toxic principles. The table elaborates Toxic Principles and Poisonous Effects Of herbal drugs in human body.

Poisonous plants-their toxic principles and important poisonous effects.

No.	Name of Plant	Useful Part	Toxic principle	Toxic effect
1.	**Dhattura (Dhatura stromonium)**	Leaves & Seeds	Daturine,Atropine	Cerebral poison, Headache, Dysphagia, Photophobia.
2.	**Kupilu /Kuchala (Nux Vomica)**	Seeds	Strychnine, Brucine	Spinal poison, stiffness of neck, Muscle pain, tetanic convulsion, redness of skin
3.	**Jayapala (Croton Tiglium)**	Seeds	Croion oil	Irritant poison, Irritant mucosa of GIT,Vomiting, loose motions, spasmodic pain, Dehydration, Death.
4.	**Gunja (Abrus precatorius)**	Seeds	Abrin, Abrussic acid.	Irritant poison effect
5.	**Bhallataka (Semicarpus anacardiun)**	Fruits	Irritant Oil	GIT- Irritant, local inflammation blisters, etc.
6.	**Karaveera (Thevetia nerifolia)**	Seeds	Thevetin	Cardiac Poison, Vertigo, Giddiness, Burning sensation.
7.	**Bhang (Cannabis sativa)**	Leaves	Canabinone, Cannabidiol	Cerebral poison, Unconsciousness, Halucinations, Vomiting etc.
8.	**Snuhi (Euphorbianerifolia somniferum)**	Latex	Euphorbon	GIT-Irritants, destroys sight-if falls in eyes.
9.	**Ahipena (Papaver somniferum)**	Milky exudates of poppy capsules	Morphine, Codeine, Narcotine etc.	Narcotic Poison, Euphobia, Deep sleep, Narcosis
10.	**Arka (Calotropis procera)**	Latex	Calactin, Caotoxin, Calotropagenin, Calotropin, Calotropain, Proceroside, Proceragenin	Vommiting, Diarrhoea
11.	**Langali (Gloriosa superb)**	Rhizomes, leaves and seeds	Colchicine, superbin, N-formyl deacetyl colchicine, demethyl colochicine and lumicolchicine.	Tingling and numbness of the lips, mucous membrane irritation, severe vomiting, diarrhea, colic, hypotension, convulsions, and respiratory failure

In Rasashastra Shodhana is a very important Samskara. The use of this samskara is to reduced the toxicity and partical size of drug. Visha dravyas are corporate in Rasashastra because of their identical and competent qualities. Purification is mandatory for safe and prolonged therapeutic effects. These poisons plants are used as life-saving drugs when used judiciously after detoxification (Shodhana).

Shodhan procedures of upavisha varga dravyas mentioned in various Granthas.

	Grantha	Process	Media	Duration of Process
1.Dhattura	**Ayurved Prakash**	1) Nimmanjan	1) Gomutra	1) 4 Yama
	Yogratnakar	1) Nimanjan	1) Gomutra	1) 4 prahar
	RasendraSarsangrah	1) Nimmanjan	1) Gomutra	1) 4 prahar
	Rasatarangini	1) Swedan 2) Pachan	1) Cow milk 2) Cow urine	1) 3 hrs 2) not mentioned

	Grantha	Process	Media	Duration of Process
2.Visha tinduka / Kuchala	**Yogratnakar**	1) Bharjan	1) Gogruta	----------
	Rasatarangini	1) Nimanjan 2) Bharjan 3) Swedan	1) kanji 2) Ghruta 3) Cow milk	1) 3 days 2) Outer skin become kapish 3) 3 hrs

	Grantha	Process	Media	Duration of Process
3.Jayapala	**Yogratnakar**	1) Remove Jiva – put - prakshalan – Bhavana	buffellow gober-warm water - Nimbu swarasa	1) Num not mentioned
	RasendraSarsangrah	Pachan	Godugdha (seeds+ 8 part Tankan)	3 days
	Rasatarangini	1) Swedan 2) 1/8 Part Tankan – pottali 3) pottali- Swedan – mud pot-dried (oil)	1) Cow milk 2) Cow milk 3) Cow milk	1) 3 hrs 2) 6 hrs 3) 3 hrs

	Grantha	Process	Media	Duration of Process
4.Bhanga	**Yogratnakar**	1) Swedan -- Bhavana	1) Babbul twak kwath -- Gomutra	Not mentioned
	Rasatarangini	1) Dry bhanga leaves – soaked water & squeezed - dry – bharjan 2) Swedan	1) water, ghruta 2) Babbul twak kwath	1) dry in sunlight 2) 1/2 hrs -

	Grantha	Process	Media	Duration of Process
5.Bhallataka	**Rasatarangini**	1) pottali – rubbed by hand – wash 2) Swedan	1) Ishitka chruna Warm water 2.Cocount water	2.1-2 hrs.

6.Ahipphena	**Grantha**	**Process**	**Media**	**Duration of Process**
	Ayurved Prakash	Bhavana	Adraka swaras	21 times
	Yogratnakar	Bhavana	Adraka swaras	21 times
	RasendraSarsangrah	Swedan	Gougha	-----
	Bhavprakash	Bhavana	Adrak swaras	21 times
	Rasatarangini	1.Filter,Swedan, prakshalan, Bhavana	Water +Cow milk, Adrak swarasa.	7 times

7.Gunja	**Grantha**	**Process**	**Media**	**Duration of Process**
	Ayurved Prakash	Swedan	Kanji	1Prahar
	Yogratnakar	Swedan	Kanji	1 Prahar
	Rasatarangini	Swedan 2. Swedan	Cow milk 2. Kanji	6 hrs. 2.3 hrs

8.Arka	**Grantha**	**Process**	**Media**	**Duration of Process**
	Ayurved Prakash	Not mentioned	_____	_____
	Yogratnakar	Swata Shuddha	_____	_____

9.Karveer	**Grantha**	**Process**	**Media**	**Duration of Process**
	Yogratnakar	Pachan	Godugada	1 Prahar
	Rasatarangini	Shodhana – not mentioned.	_____	_____

10.Kalihari/ Langali	**Grantha**	**Process**	**Media**	**Duration of Process**
	Ayurved Prakash	Nimanjan	Gomutra	1 day
	Yogratnakar	Nimanjan	Gomutra	1 day
	Rasatarangini	Shodhan – Not mentioned	_____	_____

11.Snuhi	**Grantha**	**Process**	**Media**	**Duration of Process**
	Ayurved Prakash	Not mentioned	_____	_____
	Yogratnakar	Swata Shuddha	_____	_____
	Rasatarangini	Snuhi kshir – staphan	Chinchapatra swarasa – dried – latex separated out	_____

Effect of Shodhan procedures on Upvisha Varga dravyas

GC-MS analysis of Dhatura Metel and Dhatura innoxia after Shodhan with gomutra and godugdha shows complete removal of scopolamine and partial removal of hyosciamine which signifies less toxic effects.[13]

Shodhan of Kuchala seeds by two different media using Kanji and Ardrak reveals that both the media reduce the strychnine and brucine contents in comparison to the raw seeds as determined by high performance thin layer chromatography (HPTLC). Strychnine content reduces by 39.25% and 67.82% respectively, and the brucine content decreases by 17.60% and 40.06%, in comparison to the raw seeds.[14]

Toxicity of Crotonoleic acid present in Jayapala is reduced by detoxification process in godugdha.[15]

Haemaggluting factor of gunja is reuducedwhen it is subjected to swedn in kanji for one prahar.[16]

Ashuddha Bhallataka was taken. Cap was removed and it was dumped in Pottali with brick powder. Pottali was tied. Then it was rubbed intermittent with changing brick powder till the oily content secretion from bhallatak stopped. Then it was washed with luke warm water and dried. Ashuddha Bhallataka contains oil in it, which is removed after Shodhana process.[17]

Godugdha plays a best media role in detoxifying the Peet Karveer Mool.[18]

CONCLUSION

From this study it is evident that detoxification methods metioned in rasa texts have potential role in eliminating harmful effects of Upvisha varga dravyas and these drugs if used in therapeutic matra can be safely used in various ailments.Thus, from this study it is evident that poisonous herbs can be used as therapeutic medicine without any hazardous or harmful effects.

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