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A review on therapeutic potential of poisonous herbs in Indian medicine WSR Ayurveda

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Evolution in traditional medicine led to medicinal utilization and practice of poisonous plants. Unearthing their therapeutic values can control the burden on endangering medicinal flora up to some extent. Poisonous plants for treating ailments are an age-old tradition in India after they are properly purified. Many compound formulations in AFI (Ayurvedic formulary of India) contain them for their imperative actions³. Furthermore a list of poisonous plant has been given in schedule E (1) of the drugs and cosmetics act, 1940. Considering the same said present paper focuses towards reviewing the therapeutic potential of poisonous plants described in Indian medicine. According to Ayurveda Visha can be used as medicine due to various properties such as Vyavayi (Instantaneous absorption), Aashukari (Quick acting), Yogavahi, Vishaghna (Antidotal). According Acharya Bhav Mishra properly purified Visha Dravya when taken with Yukti will act as Pranadayi, Rasayana, Tridoshaghna, Yogavahi, Brihmana and Veerya Vardhaka. In Ayurveda classics numerous poisonous herbs have been mentioned but still Acharyas Used them as medicine. It can be understood that Acharyas might have noticed Guna and Karma of Visha from the point of their possible medicinal use. It can be concluded that Poisonous herbs in Indian medicine have therapeutic potential after proper purification wsr to

Keywords: therapeutic, poisonous, herbs, vishaghna, yogavahi

Introduction

Since inception of civilization human beings are dependent upon plants for all their basic needs such as food, Shelter etc. furthermore they used the same for medicinal purpose also. Initially poisonous plants have been used by people for killing prey and homicide etc as long as history recorded. Later the understanding regarding poisonous plants has been developed and its medicinal utilization came into practice.

As stated by WHO that approx 70 - 80 % of world population depend upon traditional herbal medicine. Continuous exploitation of limited natural resources resulted in endangering of many popular medicinal herbs. On other hand poisonous plants due to lesser use are found abundantly. If one can uncover their therapeutic values the burden on endangering medicinal flora can be controlled up to some extent [1].

As per the concept of Ayurveda, "even a strong poison can be used as an excellent medicine if administered properly. On the other hand, even the most useful medicine may become a poison if handled incorrectly." Over time Ayurvedic practitioners have tried to develop a number of traditional methods to convert toxic medicinal plants to useful medicines [2].

Poisonous plants for treating ailments are an age-old tradition in India after they are properly purified. Many compound formulations in AFI (Ayurvedic formulary of India) contain them for their imperative actions [3]. Furthermore a list of poisonous plant has been given in schedule E (1) of the drugs and cosmetics act, 1940.

When we look chronologically since Samhita to the Nighantus and recent Rasashashtra texts Visha have been classified as Visha (Poison) and Upavisha (Subtle poison), in which Upavisha such as Vishatinduka (strychnous) etc. are much in practice along with Vatsanabh (Aconite) which falls under Visha [4].

According to Aacharya Sushruta there is not a single substance in the universe that is not endued with certain therapeutic virtues. Drugs or substances, used in specific combinations and according to the indication of a disease under treatment, prove curative in virtue of their native qualities and potencies [5].

Visha and Upavishas are used many clinical conditions such as Fever, Pain, Swelling, poisoning etc. as a single drug or in combinations. Considering the same said present paper focuses towards reviewing the therapeutic potential of poisonous plants described in Indian medicine.

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Materials and Methods

It is a literary review to explore therapeutic potential of poisonous plants described in Indian medicines with the help of data collected from classical and contemporary *Ayurvedic* texts and published research articles.

Discussion

Effects of Sodhana of Toxic herbs

According to classical texts of Ayurveda poisonous herbs must be used only after suitable purification. There are few exceptions also present where poisonous herbs are used without purification. e.g. Use of Sthaver Visha Dravya (Inanimate) as antidote to neutralize the effect of Jangam Visha (animal poison). Many scholars have done a variety of research works to prove the effect of Shodhna (purification) process. Research data shows detoxification of a poisonous herb remove both physical and chemical impurities and increase the potency as well. Furthermore it reduces the toxic effect and also interferes with the form and nature of drug. For e.g. unpurified Nux vomica seeds causes convulsion where purified Nux vomica has shown anti convulsion activity [6].

Visha as medicine

Visha Dravya can be used for therapeutic purpose due to following properties:

- *Vyavayi* (Instantaneous absorption) ^[7]: This property allows the *Dravya* to spread all over body before getting digested. This property helps in rapid absorption and distribution of drug to the minute channels of the body for e.g. cells, tissue etc. and will be useful in acute conditions.
- Aashukari (Quick acting) [8]: This property of Visha Dravya helps for quick distribution all over Sharira. This action is very fast such as a drop of oil when dropped on water, spread immediately. The main difference between Vyavayi and Ashukaari is that due to Vyavayi Guna drug initially spreads all over body and then get digested whereas due to Ashukari Guna drug gets digested quickly and then spreads rapidly.
- Yogavahi: Acharya Shargdhara mentioned Yogvahi as a guna of Pranahara Ausadha (Poisonous Medicines). The term Yogavahi indicates property by which a Visha Dravya can enhance the Guna of Anupana. It can be understood that Visha can enhance the property of other drug which is given along with it. In short judicious use of purified Visha can act as a bioavailability enhancer
- Vishaghna (Antidotal) action of Visha: According to Acharya Caraka Visha shows Antidotal action due to Prabhava [10]. Acharya Shivadas Sena in his commentary Charaka Tattva Pradipika opined that Visha is Vishaghna because Sthavar and Jangama annihilate each other [11]. Acharya Chakrapani while commenting on Visha gati (i.e. Jangama Visha moves upward and Sthavar Visha Moves downwards) and Vishaghna Karma (antidotal effect) of Visha opined that in case of Sthavar Visha Jangama Visha acts as Antidote and vice versa. He explained that Prabhava (Specific potency of a drug) is the reason behind antidotal nature of Visha [12].
- Rasaayan: According to Prasadani commentary by Shri Haridatta Shashtri on Rasatarangini in context of

Visha Rasayana. It is said that If Visha (Vatsnabh) is used in proper dose it act like Amruta (nectar) and provides longevity and if used injudiciously it can prove to be fatal. One should consider Bala, Desha, Kaka, Avastha, Prakruti, Satmya etc. before administration of Vatsnabh i.e. Visha. One can apply above said concept in case of other Visha Dravya also to be used as Rasayana for e.g. Bhallatak Rasayana [13].

■ Indication of Poisonous herbs in various ailments: In many Classical literatures we find the reference regarding the use, importance, and therapeutic explanation of Visha Dravyas. According Acharya Bhavmishra properly purified Visha Dravya when taken with Yukti will act as Pranadayi, Rasayana, Tridoshaghna, Yogvahi, Brihmana and Veerya Vardhaka [14].

Conclusion

Paracelsus a famous toxicologist of western science quoted that "The dose makes the poison" or in Latin, "Sola dosisfacit venenum". He explained that "All things are poisons; there is nothing without poisonous qualities. It is only the dose which makes a thing poison." It means that a substance can produce the harmful effect associated with its toxic properties only if it reaches a susceptible biological system within the body in a high enough concentration (i.e., dose). *Acharya Charaka* mentioned the same concept much earlier than Paracelsus but in a diverse manner. He quoted that if a potent poison is used in a judicious way it will act as a good medicine [15].

Above said supports the use of poisonous herbs as a medicine after proper purification. Our study suggests that use of poisonous herbs is common in almost all Indian system of medicine. Government bodies also shown concern regarding the same and added these Herbs in schedule e (1) of the drugs and cosmetics act, 1940. The main motto behind it to regulate use these drugs for medicinal use.

In *Ayurveda* classics numerous poisonous herbs have been mentioned but still *Acharyas* used them as medicine. It can ne opined that *Acharyas* might have noticed *Guna* and *Karma* of *Visha* from the point of their possible medicinal use. So it can be concluded that Poisonous herbs in Indian medicine have therapeutic potential after proper purification wsr to *Ayurved*.

Table 1-3 List of Various Poisonous Herbs Mentioned in schedule e (1) of the drugs and cosmetics act, 1940 used in various Indian system of medicine [16].

Table 1: Ayurvedic System

S. No.	Visha Dravya	Botanical Name
1	Ahipena (Except seeds)	Papaver somniferum Linn.
2	Arka	Calotropis procera (Ait.) R.Br. ex.
3	Bhallataka	Semecarpus anacardium Linn. F.
4	Bhanga (Except seeds)	Cannabis sativa Linn. (Except seeds)
5	Danti	Baliospermum montanum Mull. Arg.
6	Dhattura	Datura metal Linn.
7	Gunja (seed)	Abrus precatorium Linn. (seed)
8	Jaipala (seed)	Croton tiglium Linn.
9	Karaveera	Nerium indicum Mill.
10	Langali	Gloriosa superba Linn.
11	Parasika Yavani	Hyoscyamus niger Linn.
12	Vatsanabha	Acontium chasmanthum Stapf ex Holm.
13	Vishamushti	Strychnox nuxvomica Linn.
14	Shringivisha	Acontium chasmanthum Stapf ex Holm.

Table 2: Siddha System

S. No.	Visha Dravya	Botanical Name
1.	Abini	Papaver somniferum Linn.
2.	Attru thummatti	Citrullus colocynthis (L.) Schrad
3.	Umathai	Datura stramonium Linn.
4.	Ganja (except seed)	Cannabis sativa Linn. (Except seeds)
5.	Kunri (except root)	Abrus precatorium Linn. (seed)
6.	Nervalam	Croton tiglium Linn.
7.	Alari	Nerium indicum Mill.
8.	Kalappaki Kizahangu	Gloriosa superba Linn.
9.	Etti	Strychnox nuxvomica Linn.
10.	Kodikkalli (exempted for external use)	Euphorbia tirucalli Linn.
11.	Kattu Thumatti	Cucumis trigonus Roxb.
12.	Cheramkottai	Semecarpus anacardium Linn f.
13.	Thillai	Exoecoria agallocha Linn.
14.	Nabi	Aconitum ferox Wall.
15.	Pugaielai	Nicotiana tabacum Linn.
16.	Mancevikkalli	Euphorbia species

Table 3: Unani System

S. No.	Visha Dravya	Botanical Name
1.	Afiyun (except seed)	Papaver somniferum Linn.
2.	Bazrul-banj	Hyoscyamus niger Linn.
3.	Bish	Aconitum chasmanthum Strapfex Holmes.
4.	Bhang	Cannabis sativa Linn.
5.	Charas	Canabis sativa Linn.
6.	Dhatura seeds	Datura metal Linn (seeds).
7.	Kuchla	Strychnos nuxvomica Linn.
8.	Shokran	Conium maculatum Linn.

 Table 4: List of Poisonous herbs as per Ayurveda with their indication and Formulation [17, 18, 19]

S. No.	Visha Dravya	Indication/Action	Yogas
1.	Ahipena (Except seeds)	Dhatu Shoshaka, Grahi, Kaphaghna, Vata- Pitta karaka	Ahiphenasava, Nidrodaya Vati, Karpurarasa, Mahavataraj Rasa
2.	Arka (Rakta and Shukla)	Udararoga, Kustha, Kandu, Vrana, Pliharoga, Gulma, Arsa, Krimiroga.	Abhaya Lavana, Arka Lavana
3.	Bhallataka	Shukrala, Vata -Sleshmahara, Udara, Anaha, Kustha, Grahani, Gulma, Jwara, Switra, Agnimandya, Krimi, Vrana	Bhallataka Rasyan, Amrita Bhallataka, Bhallatak Taila, Tilarushkar Yoga
4.	Bhanga (Except seeds)	Grahi, Kaphaghna, Pachana, Moha, Mada, Vaakvardhak, Agnivardhana	Jatiphaladi Churna, Madananada Modak
5.	Danti	Deepana, Gudaankur, Ashmari, Shoola, Rakta Vikara, Kandu, Kustha, Vidaha, Sotha, Udar Roga, Kriminashaka	Dantyadyarishta, Punarnava Mandura, Abhayarishta, Kaakayana Gutika, Dantiharitaki
6.	Dhattura	Jwaraghna, Kusthaghna, Yuka Liksha Nashhaka, Krimi and Vishapaha	Kanakasava, Sutashekhara Rasa, Jvarankusha Rasa, LakshmiVilasa Rasa (Naradiya)
7.	Gunja (seed)	Keshya, Vata-Pitta-Jawara Nashaka, Relives Mukhasosha, Bhrama, Shwas, Trishna and Mada, Netra Rogahara, Vrishya Balya, Kandughna	Gunjabhadra Rasa
8.	Jaipala (seed)	Krimihar, Virechak, Deepan, Kapha Vataghna, Jalodara Nashak	Icchabhedi Rasa, jalodaradi Rasa, Jwaamurari Rasa
9.	Karaveera	Vrana Laghavakar, Nterakopa, <i>Kustha, Krimi, Vrana,</i> <i>Kandughna</i>	Karveraadya Taila
10.	Langali	Kustha, Krimi, Arsha, Vrana, Shoola, Garbhapatana	Kasheesadi Taila, Langali Rasayana
11.	Parasika Yavani	Pachana, Ruchya, Grahi, Madakari	Parashiyadi Churna
12.	Vatsanabha	Vataroga, Sannipata, Vatakaphajvara, Jvartisara, Kanharoga	Tribhuvanakirti Rasa, Anandabhairava Rasa, Sutasekhara Rasa, Vatavidhwansana Rasa
13.	Vishamushti	Madakari, Vyathahar, Grahi, Rakta Vikara,	Agnitundi Vati, Vishamushti Vati, Krimimudgar Rasa, Laxmivilas Rasa
14.	Shringivisha	Rasayana, Yogvahi, Tridoshaghna, Veeryavardhana, Kustha Sotha Nashaka, Madhumeha Hara	Anand Bhairav Rasa, Mritunjay Rasa, Jwaramurari Rasa, Rambana Rasa

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