



REVIEW OF PRATIVISHA WITH SPECIAL REFERENCE TO  
ANTIDOTE IN CONTEMPORARY VIEW

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**ABSTRACT :**

Poisoning is a worldwide problem which results in significant morbidity and mortality. For this every science of medicine has its role of treatment modalities for removing poison caused by harmful/poisonous substances. Antidotes are therapeutic agents intended to modify or counteract with the clinical effects of particular toxic substances in the human body. They are used to prevent the absorption of poisons, to enhance their elimination and neutralize their effect. The foundation of *Ayurveda* is based on eight branches (*Astanga Ayurveda*) and in those one of the divisions is *Agada Tantra* (Toxicology). This deals with treatment of disease caused by plant and animal poisonous substance taken in or formed in the body that destroys life or impairs health. In *Ayurveda* we will get in detail explanation of poisoning and its management including *Prativisha* (Antidotes). *Prativisha* is indicated in patient who is bitten by snake and so on (*Jangama visha*) should be administered poisonous roots (vegetable poison) in the form of internal and external application. The person who had consumed *Stavara visha* (Vegetable poison) should be bitten by snake under supervision of clever physician. Thus poison is best antidote to nullify the effect of poison. In *Ayurveda* our *acharyas* clearly mentioned about the different types of poisonous substances and its antidote in *visha chikitsa*. This paper highlights regarding different types of poisons and its antidotes mentioned in *Samhitas*.

**Key words:** *Stavara visha, Jangama visha, Visha Vegas, Poison, Visha chikitsa, Agada.*

**INTRODUCTION:** The foundation of *Ayurveda* is based on eight branches (*Astanga Ayurveda*) and in those one of the divisions is *Agada Tantra* (Toxicology). The earliest reference of *Agada* are *atharva veda, Adi parva of Mahabharatha, Ramayana*. The word “*Agada tantra*” is derived from the combination of the two words –*agada* and *tantra*. The word *agada* is again formed of *a+gada*. *Gada* means disease, discomfort, pain, poison, or morbid conditions produced by any type of the poison inhaled, absorbed, applied, injected or developed within the body. However the term *Agada* is used specifically for the branch of medicine dealing

toxicology, the description of different types of poisons and their antidotes or *Agada* means the medicaments which are used to combat these morbid conditions.<sup>1</sup>The science through which the positive health of an individual is preserved. *Agada tantra* deals with the signs and symptoms & also with the management of poisoning, resulting from the bites of insects, snakes and worms, spiders, rodents etc and various other poisons produced by improper combination of substances or drugs.<sup>2</sup>As per *acharyas*, *Visha* is classified into two types, *Stavara visha* (Inanimate poison) and *Jangama visha*(Animate poison).<sup>3</sup> For these *visha* conditions *acharya*

*charaka* in *chikitsastana* had described about *chaturvimshati upakramas*, *Prativisha chikitsa* is one among these *chaturvimshati upakrama* and its details available in *charaka chikitsastana* 23th chapter and *Astanga Hrudaya uttarasthana* 48<sup>th</sup> chapter. *Prativisha* (Antidotes) - in the seventh Vega of *visha* if inanimate poisoning is occurred, person should be bitten of venomous animals and if bite of venomous animal occurred he should be given inanimate poison as a part of treatment.<sup>4</sup>

### REVIEW OF PRATIVISHA AS PER AGADA TANTRA IN AYURVEDA:

**Definition of Prativisha:** *Atharveda* described about *Prativisha* in the form of *Tabuva* and *Tastu* the medicinal herbs which destroy the effect of snake poison.<sup>5</sup> According to *acharya chakrapani* stated in *Ayurveda Deepika* that the substance by which poison will be destroyed or used to counteract the poison is called as *Prativisha*.<sup>6</sup> *Acharya Dalhana* stated in *Nibandha Sangraha* that the substance by which poison will be disappeared and the medicine which will be used for poison is called as *Agada*.<sup>8</sup> <sup>9</sup> Antidotes are a remedy which neutralize or counteracts the effect of poison without causing appreciable harm to the body.<sup>10</sup>

**Types of Antidote:** On the basis of mechanism of action of antidotes, these are classified into mechanical, chemical, physiological, Universal.<sup>11</sup>

### Indication of Antidotes:

1. The poison may not have been completely removed by emesis and gastric lavage or other procedures are contraindicated.
2. Poison is already absorbed.
3. The poison has been administered by route other than ingestion.

**Mechanism of action of antidotes:** Antidotes exert their beneficial effects by a variety of mechanisms, including forming an inert complex with the poison, accelerating detoxification of the poison, reducing the rate of conversion of the poison to a more toxic compound, competing with the poison for essential receptor sites, blocking essential receptors through which the toxic effects are mediated and bypassing the effect of the poison.<sup>12</sup>

### Indication of Prativisha:

1. When the effects of poison are not subsided by *Mantra chikitsa* and other *aushada Upakramas* and drug administration.<sup>13</sup>
2. *Prativisha* should be administered after the lapse of the 5th vega and before the lapse of 7<sup>th</sup> vega of *visha*.<sup>13</sup>
3. When all treatment modalities failed in case of *Stavara* and *jangama visha*.<sup>14</sup>
4. In many other poisoned condition, in emergency condition of poison or when all methods of treatment fail, the *Prativisha* should be administered.<sup>15</sup>

### Contraindication of Prativisha (Antidotes):

1. After the lapse of the 7<sup>th</sup> *visha vega*.<sup>16</sup>
2. In case of doubtful whether a wounded person / person is having poison or not.<sup>17</sup>
3. When poison is localised in blood, *prativisha* should not be administered.<sup>17</sup>
4. In a person who consumes *Ruksha ahara* (Dry food), use of *prativisha* produces disorders of vision, pain in the ear and other *Vatavyadhi*.<sup>18</sup>
5. In a person suffering from *Ajirna* (indigestion).<sup>18</sup>

**Procedure of Administering Antidotes (Prativisha Prayoga vidhi)-<sup>19</sup>** The patient who has been purified by the use of ghee, who have habit of taking healthy food, who is pure in mind should be administered *Prativisha* after sunrise and during

winter and spring seasons and in summer for emergency poisoned condition only.

It should not be administered during rainy season and on cloudy days, not to those who are in anger, suffering from the diseases of *pitta*, the impotent, the king, the *brahmana*, who is troubled very much from hunger, thirst, exertion, sunlight, long walk or diseases, pregnant women, children, old aged, those who are *Rukshata* (Emaciated body) and those suffering from diseases of vital organs.

#### Dose of Prativisha in Different poisoned condition-<sup>20</sup>

1. For the patient of snake bite –the vegetable poisons should be used in the doses

- a) *Heena Matra* (Minimum dose) -4 *yava*
- b) *Madhyama Matra* (Moderate dose)-6 *yava*
- c) *Uttama matra*(maximum dose) -8 *yava*

2. In case of insects bite (*Kita visha*) - 2*yava matra*

3. In case of *Vrischika visha* (Scorpion bite) – 1*Tila matra*

4. In case of *Loota visha* (Spider poison)-*Stavara visha* should not be advised, it should be applied to skin after *pracchana karma*.

**Pathyaapathya after Administration of Prativisha -<sup>21</sup>**Though the use of counter poison (*Prativisha*) becomes a daily habit, accustomed things forbidden should be avoided such as use of pungent(*Katu*), sours(*Amla*), oils(*Taila*), salts(*Lavana*), daysleep(*Divaswapna*), sun-

light(*Atapasevana*), fire(*Agnisevana*) and dry foods(*Ruksha ahara*) especially in those conditions there will be always fear of ingestion.

#### Selection of the Prativisha (Antidotes)-<sup>22</sup>

*Stavara visha* (Vegetable and mineral poisons) generally possess properties similar to *kapha* and spreads upwards, where as *jangama visha* (Animal poisons) possess properties of *pitta* and spread downwards, thus the two kind of poison possessing opposite qualities when put together destroy each other. Hence patient who is bitten (by snake and so on) should be administered poisonous roots (vegetable poison) in the form of internal and external application. The person who had consumed *Stavara visha* (Vegetable poison) should bitten by snake under supervision of clever physician. Thus poison is best antidote to nullify the effect of poison.

**Mode of Action of Prativisha:** *Prativisha* acts like nector when applied / administered to wounds or persons who have poison in them. Whereas it acts like poison only if the wound or person is not having poison. Powerful antidotes administered to weak persons gives rise to many complications / diseases, so also when improperly administered with wrong dose and wrong time.<sup>23</sup>Or in case of doubt whether it is *savisha* / *nirvisha* in such condition use *nirvishaagada*. If you use *savisha agada* in case of *visha* condition but after long time (after 7<sup>th</sup> *vishavega*) it act as *visha*.<sup>24</sup>

**Table.1List of Stavara visha and its specific antidotes as per Basavarajeeyam <sup>25</sup>**

| Sl.No | Stavara visha        | Prativisha (Specific Antidotes)  |
|-------|----------------------|--|
| 1     | <i>Langali</i>       | <i>Shunti</i> (Zingiber officinale)  |
| 2     | <i>Ballataka</i>     | <i>Palasha puspha</i> (Butea monosperma),<br><i>Kapikacchu</i> (Mucuna pruriens) |
| 3     | <i>Snuhi ksheera</i> | <i>Avartaki</i> (Cassia auriculata)  |
| 4     | <i>Vishamusti</i>    | <i>Jambu</i> (Syzygium cumini), <i>Ketaki</i> (Pandanus tectorius)               |

|   |                     |   |
|---|---------------------|---|
| 5 | <i>Dattura</i>      | <i>Kamala (Nelumbo nucifera) patra choorna, Tandulodaka</i>             |
| 6 | <i>Vatsnabha</i>    | <i>Meghanada Patra swarasa</i>  |
| 7 | <i>Arka ksheera</i> | <i>Neeli (Indigofera tinctoria) swarasa</i>                             |
| 8 | <i>Ahiphena</i>     | <i>Ardraka ( Zingiber officinale)</i>                                   |
| 9 | <i>Karavira</i>     | <i>Haritaki (Terminalia Chibula ) and Shunti ( Zingiber officinale)</i> |

**Table.2 List of Stavara visha and its specific antidotes as per Anupanamanjari<sup>26</sup>**

| Sl.No | Stavara visha      | Prativisha (Specific Antidotes)   |
|-------|--------------------|---|
| 1     | <i>Vatsanabha</i>  | <i>Patuvana Vruksha-Iphala</i>  |
| 2     | <i>Kupilu</i>      | <i>Jambhu (Syzygium cumini) patra swarasa</i>   |
| 3     | <i>Ahiphena</i>    | <i>Balamula, Ardraka, Hingu, Panchagavya</i>  |
| 4     | <i>Dattura</i>     | <i>Takra, Nimbuka, kamalanala, Udumbarapatra swarasa</i>  |
| 5     | <i>Bhanga</i>      | <i>Kataka, Takra, Jambhupallava</i>   |
| 6     | <i>Gunja</i>       | <i>Tanduliyaka, kadalikanda swarasa, yastimadhu, chandana, jambhu patra swarasa</i>                 |
| 7     | <i>Ballataka</i>   | <i>Tila, Ghrita, Erandataila, haridra, bilva patra, narikela, Bhibitaki mula, Navaneeta</i>         |
| 8     | <i>Arkaksheera</i> | <i>Navaneeta, Tila, Ghrita, Erandataila, haridra, Bilva majjaphala, narikela taila, Daruharidra</i> |
| 9     | <i>Karavira</i>    | <i>Nimbuka, Jambhu patra swarasa.</i>   |

**Table.3 List of Jangama visha & its specific antidotes of Stavara visha<sup>27</sup>**

| Sl.No | Jangama Visha          | (Specific Antidotes by Stavara visha)                     |
|-------|------------------------|---|
| 1.    | <i>Vruschika Visha</i> | <i>Paste of jayaphala beeja on site of scorpion sting</i> |
| 2     | <i>Sarpa Visha</i>     | <i>Vatsanabha</i>   |
| 3     | <i>Alarka Visha</i>    | <i>Dattura</i>  |
| 4     | <i>Mooshika Visha</i>  | <i>Vatsanabha</i>   |

**Table. 4 List of other References-<sup>28,29,30,</sup>**

| Sl.No | Name of Visha      | Specific Antidotes         |
|-------|--------------------|----------------------------|
| 1     | <i>Dooshivisha</i> | <i>Dooshivishari Agada</i> |
| 2     | <i>Garavisha</i>   | <i>Bilwadi Agada</i>       |
| 3     | <i>Keeta visha</i> | <i>Dashanga Agada</i>      |

**Table.5 List of Antidotes in Specific Poisoning-<sup>31</sup>**

| Specific Poisoning               | Specific Antidotes |
|----------------------------------|--------------------|
| Acetaminophen/ Paracetamol       | NAC                |
| Anticholinergic poisoning        | Physostigmine      |
| Rodenticide poisoning – warfarin | VIT K1             |
| Aspirin                          | Sodium bicarbonate |
| Arsenic                          | BAL                |
| Beta blockers                    | Glucagon, Insulin  |
| Benzodiazepines                  | Flumazenil         |
| Botulism                         | Guanidine          |
| Black Widow Spider Envenomation  | Antivenom          |

|                          |                             |
|--------------------------|-----------------------------|
| Cholinergic agents       | Atropine                    |
| Chloroquine              | Diazepam                    |
| Cyanide                  | Amyl nitrite/Sodium nitrate |
| Copper                   | Penicillamine               |
| Iron                     | Desferrioxamine mesylate    |
| Insulin                  | Glucose /Dextrose           |
| Isoniazid poisoning      | Pyridoxine(vit-b6)          |
| Lead                     | Calcium Disodium EDTA       |
| Mercury                  | N-Acetyl Pencillamine       |
| Methanol                 | Ethanol                     |
| Methotrexate             | Glucarpidase                |
| Snake Bite               | Antisnake Venom             |
| Scorpion Sting           | Anti Scorpion Venom         |
| Tricyclic Antidepressant | Sodium Bicarbonate          |

**DISCUSSION:** Antidotes exert effects by a variety of mechanisms, including forming an inert complex with the poison, accelerating detoxification of the poison, reducing the rate of conversion of the poison to a more toxic compound, competing with the poison for essential receptor sites, blocking essential receptors through which the toxic effects are mediated, and bypassing the effect of the poison the use of antidotes depends on the clinical indication and the availability. *Prativisha Chikitsa* is one among the *chaturvimshati upakramas* which is commonly used in emergency condition of poisoning. *Astanga Sangraha* described that in case of doubt whether it is *savisha / nirvisha* in such condition use *nirvishaagada*. If you use *savisha agada* in case of *visha* condition but after long time (after 7<sup>th</sup> *vishavega*) it act as *visha*. These *prativisha* should be used in the form of *swarasa*(Juice) and *Lepa*(Application of paste).

*Visha* is having *Laghu, sukshma, vyavayi, Vikashi, Aashukari* and so on qualities which will penetrates *Sukshmatikushma srotas* and acts very quickly hence *Prativisha* is used by *dravyas* which will

neutralizes and counteracts the effect of poison. The mechanism of *prativisha* can be understood by their individual properties, *Guna* and *Karma*.i.e. In *Vruschika visha* use of *Jayaphala beeja* mixed with water then that paste is applied over site of scorpion sting. *Vruschika visha* causes anxiety, severe burning sensation, severe radiating. It will pacify the burning sensation, pain and so on. In case of *jangama visha* such as snake's bite, scorpion sting poisoning, Rodents poisoning, *Vatsanabha* root paste is rubbed over skin. It acts as a *vedanastapana, dahaprashamana* and *sothahara*. When applied locally over site of bite or sting, nerve endings get stimulated first and then depressed by numbness, loss of sensation. It may act like local anaesthetic to pacify severe pain in scorpion bite by absorbing through mucous membrane of skin. Scorpion sting causes cardiac arrhythmia and cardiac failure. *Vatsanabha* acts on heart giving it stimulation and *bala*(Strength).

**CONCLUSION:** *Ayurveda* knows the importance about *Prativisha* (Antidote) to counteract the effect of poisons. Hence this article had explained about some specific



antidotes for *stavara* and *Jangama visha*. *Classical Prativisha* (antidote) are to be evaluated scientifically with special references to their effect, safety, dosage and applicability. It will be helpful for emergency condition or day to day practice due to poisoning for Physicians or practitioner.

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