A REVIEW ON CHATURVIMSANTI VISHOPKRAM (24 PROCEDURES FOR THE TREATMENT OF POISON ) IN AYURVEDA

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ABSTRACT

Agadatantra deals with the study of sarpa (snake), keeta (insect), lutaa (spider), musaka (rat) etc Jaangam (animate) bite poison, Sthavara (inanimate) combined poisoning diagnosis and its treatment also. Chaturvishanti Vishopkrama are procedures of poison treatment. The data obtained from this review can be used to evaluate the potentiality of the treatment of poison in Ayurveda.

KEYWORDS: Ayurveda, Vishopkrama, treatment, poison, Agadatantra.

INTRODUCTION

Ayurveda, an ancient system of medicine, primarily concerned with the preventive and promotive aspects of health for the well being through the concepts of positive physical and mental health.¹ Agadatantra is one of the incredible branches of indigenous branches derived from the ancient sciences of Ashtanga Ayurveda. It is still practiced extensively, especially in rural and tribal areas.² Agadatantra deals with the study of sarpa (snake), keeta (insect), lutaa (spider), musaka (rat) etc Jaangam (animate) bite poison, Sthavara (inanimate) combined poisoning diagnosis and its treatment also.³ The word Agadatantra is derived from two words Agad and Tantra. Agad itself is derived from word Gada. The word Gada has two meanings, one is disease and other is poison. Agada means anything that conquers a poison. And Agadatantra is the system of knowledge for conquering poisons.⁴ In Agadatantra so many types of treatment of poison are described in deatails. Chaturvishanti Vishopkrama are procedure of poison treatment.
These are\textsuperscript{[5]}

1. *Mantra* (Incantation)
2. *Arishta* (Tourniquet)
3. *Utkartana* (Incision)
4. *Nishpidana* (Application of pressure around the bite)
5. *Chooshana* (Suction)
6. *Agni* (Cauterization of bitten part)
7. *Parisheka* (Washing affected part)
8. *Avagaaha* (Immersion bath)
9. *Raktamokshana* (Blood letting)
10. *Vamana* (Emesis)
11. *Vireka* (Purgation)
12. *Upadhaana* (Application of medicine on head after incision)
13. *Hridayaavarana* (Administration of ghee to protect heart)
14. *Anjana* (Collyrium)
15. *Nasya* (Nasal medication)
16. *Dhooma/ Dhoopa* (Medicated fumigation)
17. *Leha* (Consumption of medicated jam)
18. *Oushadha* (Consumption of medicine)
19. *Prasamana* (Removal of residual poison)
20. *Pratisaarana* (Dusting of medicated powder)
21. *Prativisha* (Antidote)
22. *Samjnasamsthapana* (Measures to bring back senses)
23. *Lepa* (Application of medicated paste)
24. *Mritisanjeevana* (Revival of the apparently dead)

\textit{I.Mantra}\textsuperscript{[6]}

This is said to be the most effective and sure treatment in almost all animate poison like snake bites. They are combinations of consonants and vowels just like words in the language but the stress on syllables, accent tone and style of pronunciation differ. Some mantras have...
an intelligible meaning but some don’t. The master gives mantras in the form of secret advice to the disciples on an auspicious day and time and the student will have to repeat the mantra several times a day to get Siddhi (efficacy, control and authority) over the mantra. The effectiveness of mantra depends on the siddhi of the practitioner on the particular mantra. Mantras are never used to test its efficacy on an experimental basis but they are used only in cases of extreme urgency. It is said that any effort to use mantra merely for an experiment nullifies the efficacy in the hands of the practitioner, whereby he loses the efficacy gained by practice, i.e., recital of the mantra. Gods and great sages or seers originally disclosed Mantras and the effect of these mantras are beyond comprehension. They are saturated with truth and deliberation. Mantra recited improperly, without paying heed to the customs and stringent guidelines or defective in consonant, vowel, syllable, accent, stress or intonation will be ineffective. Mantra is to be accepted and practiced by an individual who maintains celibacy, and does not consume alcoholic beverages or foods that are non-vegetarian. This is the main reason in giving treatment of poisons using drugs specifically termed Agada. By the use of mantra the spread of poison through vessels, especially its ascent is to be blocked and save the patient’s life. There are practical difficulties in getting a sage person for incantation with all its rituals, words and intonations.

We can compare with modern medicine treatment of poison as there is first treatment of snake poison to allay fear and anxiety.\textsuperscript{[7]} Mantra also play the role for allay fear and anxiety of patient.

2. \textit{Aristabandhana} (ligature, tourniquet)

The spread of poison is to be arrested by binding the site using mantra. Physically, applying ligature blocks the spread.\textsuperscript{[8]} If the bite is on limbs, applying a tight ligature four fingers above the level of bite arrests the spread of venom. The material is a string or twine or cord prepared from cloth or bamboo. Just like a dam blocking the water, this measure blocks the spread of venom. The blood vessels of the victim become incapable of spreading the venom. This block can be done with mantra also if the physician is an expert in the use of mantra.\textsuperscript{[9]} Venom that has not spread is to be blocked by tying with a bamboo string.\textsuperscript{[10]} In modern treatment of poison tourniquet has been used for injected and bite poison.\textsuperscript{[11]}
3. *Utkarthana* (Excision)

Excision of the bitten part is termed *utkarthana*. This can be done only when the bitten part is the tip of a finger or toe. In practice, sometimes, *Pracchaana* is also done with the same purpose. *Nishpeedana* is done on sites that are not *marmas* (vital points) or joints. In the absence of seed, sprouts don’t appear. Similarly, as a result of excision or *Pracchaana*, all toxic manifestations resulting from bite can be prevented.\[10\]

Incision of the skin at the site of bite and permitting bleed is another method of removing the unabsorbed venom. A plus shaped incision is made at the site of bite in such a way that the center point of the plus is the site of bite. Spontaneous bleeding relieves the venom at the site of bite. In modern treatment incision and suction used for injected poison snake poisoning.\[10\]


By using the fingers or any roller like object, the venom is brought to the site of bite. Afterwards, incising the bitten part and permitting bleed can remove this venom. This treatment also is done when the venom has not spread from the site of bite. *Nishpeedana* should not be done on *Marma* (Vital points) and joints.\[10\]

5. *Chooshana* (Suction)

This procedure is done to absorb the venom from the site of bite by suction with the mouth. The person is directed to suck the venom from the site of bite using his lips. The purpose of filling the mouth with mud, ash, cow dung or medicinal recipe as absorbent material is to see that the venom is not getting transferred to the mouth of the operator.\[10-13\]

6. *Agni* (Burning)

When the bite is on a part of the body that cannot be subjected to *aristabandhana* such as the trunk or face, suction, excision and burning the site are indicated. Except in the cases of *Mandalee sarpa damsa* (viper bite), the bite spot should be burned with red-hot gold, iron or ember from the burning red-hot tip of log. In viper bite, *pitta* is increased and there burning is contra indicated as toxic manifestations may aggravate. In toxicity resulting from a wound caused by poisoned arrow, the site of wound should be burned by red hot metal after removing the poisoned arrow.\[10-13\]
7. **Pariseka (Sprinkling)**

This procedure is the washing of affected area with running plain water or medicated water, cold, warm, lukewarm or bearably warm, depending upon the condition of the patient. In snake bites, the affected part or even the organ can be irrigated with water medicated with *Chandana* (Santalum album) and *Useera* (Vetiveria zizanoides).\(^{[10-13]}\)

8. **Avagaahana (Immersion bath)**

*Avagaahana* is done in the presence of severe pain or pain caused by retention of urine. A metal vessel large enough to contain the patient’s body up to the level of neck is filled with warm water and the patient is directed to sit in it in such a way that his body remains immersed in water. When the water loses warmth, additional warmed water is supplemented, after removing an equal quantity of cold water.\(^{[10-13]}\)

9. **Raktamoksana (Bloodletting)**

Bloodletting is the last and most potent treatment when the poison has spread the entire body. Among the purification therapies, it occupies a significant role. When the poison has spread, bloodletting is to be done because when poisoned or toxic blood is removed, the toxicity manifestations fail to sustain and vanishes altogether. *Siravedha* at the site of bite or bloodletting by cutting the veins at the extremities and forehead is effective in removing the toxic blood from the system. Due to this reason, bloodletting is the top most treatment in toxicity manifestations of poisons. In conditions where the veins become invisible due to the presence of edema, *sringa* (horns of animals) or leeches may be applied over the site of bite to remove the contaminated blood. Horns of animals have to be prepared and kept ready for the purpose. The sharp tip of the horn is applied to the suction pump and the wider end is applied to the site of bite. At times, the venom is removed by sucking the sharp end where a nipple like suction appendage made of metal is affixed. Bloodletting is contraindicated during pregnancy, in children and in old age.\(^{[10-13]}\)

10. **Vamana (Induction of Emesis)**

In cold season, in the presence of secretion of cold saliva, when the predominant increase is in *kapha*, and when the patient is of *sleshma* constitution, induction of emesis is to be done by the administration of emetics. Emesis is to be induced in latent poisoning (*Doosheevisha*) after sudation. In the first and second phases (*vega*) of inanimate poisoning, emesis is indicated. Emesis is to be induced in the treatment of concocted poisoning (*gara*), as the initial measure. After performing *Hrudayaavaran*, emetics are to be administered. In the
second, fourth, fifth and sixth phases of cobra (Darveekara) poisoning, emetics are indicated. In the third phase of viper (Mandalee) poisoning, emesis is to be induced. In the second, fourth and fifth phases of krait (Raajila) poisoning, emetics are indicated. In worm or insect bites (Keetavisha), external applications are to be done after purification therapies such as emesis and purgation. In Slaishmika spider poisoning, if the magnitude of derangement of dosha is great, emetics are to be given. In rat poisoning (Mooshikavisha) emetics are given. Inanimate poisoning where sleshma is the dosha that is subjected to major derangement, emesis is indicated. Any ingested poison within 4-6 hrs vomiting is indicated.10-13

11. Virechana (Purgation)
When the patient suffers from burning sensation and pain of the gut (kosta), flatulence and block or difficulty in passing urine, purgatives are indicated. In the second phase of inanimate poisoning, purgation is to be done. In the first stage of latent poisoning (Doosheevisha) the purification measure includes purgation. Inanimate poisoning where pitha is the dosha that is subjected to major derangement, purgation is indicated. In major insect poisoning, purgatives are to be given. In rat poisoning, purgation is to be done. In rabies, purgation is to be done with medicines that are mixed with the milky latex of Arka (Calotropis gigantia).14

For the elimination of absorbed poison purgation is done by using sodium sulphate, magnesium sulphate.15

12. Upadhana
Upadhana is a treatment in which the vortex is incised in a plus shape or in the shape of crow’s legs and fresh flesh with blood taken from animals is placed above the incised part. This treatment is also called Vishasamkraamana or Kaakapada. When the passage of kapha is blocked by visha, vaata gets trapped and in this stage, the individual appears as if he is dead, but breathing is present. Fatal symptoms are absent. Fine paste of Charmakasha Katurohinee (Picrorhiza kurroa) in the size of one bilva (48 g) is to be place on the incised area. After this, nasal medication (nasya) with the fine powders of the following thoroughly mixed is also done.
1. Katabhee (Careya arborea)
2. Katuka (Picrorhiza kurroa)
3. Katphala (Myrica Nagi) In the seventh phase of snake bite, after giving pungent and hot substances for nasal medication (nasya) and eye medication (collyrium), deep incisions are made on the vortex and flesh with blood or the adsorbent barks of tree are placed.
Upaadhana is done on the vortex if the bite is on the lower half of the body. Upaadhana placed on the feet treats bites on the upper parts of the body.\textsuperscript{[16]}

13. \textit{Hridayavarana} (Cardiac protection)
In general, poisons and \textit{ghee} (clarified butter) have diametrically opposing properties. Poisons derange \textit{kapha}, \textit{pitha} and \textit{vaata} including their reservoirs and then occupy the heart. From the heart, it spreads all over the body quickly and becomes detrimental. Administration of \textit{ghee} immediately after poisoning or envenomation slows down the spread of poison whereby more time is available for treatment. This is the principle of \textit{Hridayavarana} or protection of heart.

The prime duty of the physician is to guard the heart and hence, depending upon the availability, \textit{Ghee}, \textit{ghee} and honey or \textit{Agadas} (antitoxic drugs) mixed with honey is given to the patient. As a result of this process, \textit{kapha} gets accumulated in the heart. Being the first point of vitiation, the poison is also trapped in it. Specific anti toxic drugs (\textit{agada}) mixed with milk, honey or \textit{ghee} is to be given. The heart is to be primarily protected. Depending upon the availability, the following are to be consumed.\textsuperscript{[17]}

1. Honey
2. \textit{Ghee}
3. Marrow
4. Milk
5. \textit{Gairika} (Red ochre)
6. Expressed juice of cow’s dung
7. \textit{Ikshu} (Saccharum officinarum)
8. \textit{Kaka/Kaakaàñda} (Diospyros malabarica)
9. Blood of goat or other animals
10. Ash mixed with water
11. Earth or soil mixed with water

14. \textit{Anjana} (Collyrium)
Usually pungent and hot drugs, such as fine powder of \textit{Maricha}, are applied as such or in the form of paste to awaken the snakebite victim from loss of consciousness. This drug is very effective in cobra bites. When the patient’s eyes are edematous and when he is sleepy, collyrium is applied. Collyrium is effective when the eyes are congested and vision is hazy or colored.
Anjana is indicated in the third phase of cobra bite. Agada is to be used as anjana in the seventh phase of cobra bite. Strong and pungent anjana is indicated in sixth phase of Raajila (krait) bite.[18]

15. Nasya (Nasal medication)
Nasal medications are given in the form of liquids and fine powders. Pradhamana (blowing) nasal medication is usually given when the patient is unconscious. Drugs having pungent properties are commonly given for the purpose. In the third phase of cobra bite, nasya is indicated. In the seventh phase of cobra bite, strong nasya is indicated. In the sixth phase of krait bite, strong Pradhamana nasya is indicated.[19]

16. Dhooma (Medicated fumigation)
Fumes or smoke arising from antitoxic materials are used for detoxification. In insect poisoning (Keeta visha), fumes arising from a combination of human hair, Sarshapa (mustard seed) Peetha (Coptis teeta) and old jiggery relives insect bites, as stated by Sage Kaaśyapa.[20]

17. Leha (Electuary)
Semisolid medications prepared from various drugs are used in poisoning are termed leha. Vishahaari lehyam is used for diagnostic as well as therapeutic purposes.[21]

18. Oushadha (Internal administration of medicaments)
This is a wide topic. Under this title, Medicines such as Kashaaya (water extract), Gutika (pills), Lehas (semisolid medications), Nasya (nasal medication in the form of drops), Anjana (Collyrium), medicated peya (kanjee) etc. are included.[22]

19. Prashamana (Suppressive Drugs and procedures)
After bloodletting the residual blood deranged by the heat of poison should be suppressed or stabilized by external applications of medicinal pastes or by irrigation with water or fluids medicated with cold potency drugs.[23]

20. Pratisaaran (Rubbing of medicated powder)
In worm or insect poisoning, after sudation of the bite, pracchhaana and pratisaaran with the fine powders of Rajani (Curcuma longa), Saindhava (Rock salt), Pippalee (Piper longum), Sunthee (dry Zingiber officinale), Maricha (Piper nigrum), Shireeshaphala (flowers of Albizia lebbeck) are indicated. Pratisaaran is a treatment where fine or coarse powder is
rubbed on the affected area to enhance the flow of blood or body fluids. *Pratisaarana* is to be done when *Kapha* is in the throat. The *Kshaara of Pippali* (Piper longum) and Naagara (Dry Zingiber officinale) mixed with butter is given when *kapha* is increased in the throat.\(^{[24]}\)

**21. Prativisha**

When the spread of poison becomes uncontrollable by *Mantra* and *Tantra* procedures and when the fifth phase of poison is over but the seventh phase is not over, *Prativisha* (Antitoxic, toxic substances) are to be made use of. This is the last resort in the treatment of poisons and hence should be used only in extreme cases, with the permission of the king. Inanimate poisons have properties similar to that of *kapha* and animate poisons have properties similar to *pitha*. Inanimate poisons act upwards and animate poisons act downwards. These opposing natures of actions of the said poisons are effectively made use of in *Prativisha* therapy. Victims of venomous bites are treated with root poisons and a person who has drunk root poison is subjected to bite of a venomous snake.\(^{[25]}\)

Antidotes are remedies which counteract or neutralise the effect of poisons without causing appreciable harm to the body. Antidotes are substances which prevent the action of the poison or neutralize the poison or produce sign and symptoms apposite to those produce by poison. They need to be used because.

a) The poison may not have been completely removed by emesis or gastric lavage or those procedure are contraindicated,

b) The poison is already absorbed, or

c) The poison has been administered by route other than ingestion.\(^{[26]}\)

**22. Sandnyasansthapana (Measures to bring back senses)**

Sage *Charaka* states that during the sixth phase of visha, this measure is to be adopted. Fine powder of the following drugs, mixed with the bile of cow shall be consumed. In the commentary *Aayurvedadipika*, it is stated that this medicine is to be used as collyrium or eye drops.\(^{[6]}\)

1. *Rajanee* (Curcuma longa)
2. *Manjistha* (Rubia cordifolia)
3. *Maricha* (Piper nigrum)
23. Lepa
Application of medicated paste on affected area of body.

24. Mritasanjeevana (Revival of the apparently dead)
These drugs are used in conditions of poisoning where the patient is apparently dead, but the life energy remains hidden in the body. Seeds of Palaasha (Butea frondosa) finely powdered and made to a paste in the bile of peacock are given internally. External application on the vertex or feet after incision (Upadhaana) internal administration and nasya with the following medicine is effective in the terminal stages of asphyxial deaths such as hanging or drowning.
1. Kaakaanda (Diospyros malabarica)
2. Surasaa (Ocimum sanctum)
3. Gavaakshee (Citrullus colocynthis)
4. Punarnava (Boerrhavia diffusa)
5. Vaayasee (Trichosanthis tricuspidata).

CONCLUSION
The classification of poisons is based on certain basic criteria like origin, base, properties, potency etc. Some of the Ayurvedic classics and texts in medieval period have classified all the poisons into two categories as MahaVisha and Upavisha basing on their toxicity and potency. Chaturvishanti Vishopkrama are procedure of poison treatment. The detailed data described here will helpful to the scholar for the further study.

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