



## ROLE OF PARASURGICAL PROCEDURES IN THE MANAGEMENT OF SARPA VISHA

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### ABSTRACT

Agadatantra is one of the eight branches of Ayurveda. It is a branch in which treatment of various Sthavara (~plant origin) and Jangama (~animal origin) Visha (~poisons) are described with signs and symptoms. A general principle for the treatment of poisoning is explained in Ayurvedic Samhithas like Charaka, Sushruta, and Vagbhata. Snakebite is one among Jangama Visha (~animal origin poison), its mortality in India is approximately 1300 annually. The snakebite management protocol is elaborately prescribed by the World Health Organization (WHO). Acharya Charaka has explained Chaturvimshathi Upakrama (~24 treatment procedures) for the management of all types of poison including snake bite. Agnikarma (~Cauterization), and Raktamokshana (~Blood letting), are the only two Para surgical procedures among 24 treatment modalities. Para surgical procedures help to get rid-off localized poison immediately thus preventing the spread and further complications. This article is an extensive review mainly focussed on the role of Para surgical procedures in the management of Sarpa Visha (~Snakebite poison).

**KEYWORDS:** Agnikarma, Ayurveda, Chaturvimshati upakrama, Parasurgical procedures, Raktamokshana, Snakebite management.

### INTRODUCTION

AgadaTantra is one of the eight branches of Ayurveda. Which deals with various types of poisons, their signs, and symptoms, diagnosis, and management<sup>1</sup>. Acharya Vagbhata explained general Sarpa Visha Chikitsa based on Dosha (Bioenergy center), Sthana (Site), Prakriti (Nature), Vega (Stage).

- In Darvikarasarpa Damsha (~Bite of hooded snakes)-  
Pana (Drink) of Sindhuvaarita Moola (Vitexnagundo Linn), or Girikarnika (Clitoria ternatea Linn).

- In Mandala Sarpa Visha (~Bite of Snakes with patches) –Equal quantity of Sugandha (Santalum album), Mridvika (Vitis vinifera), Gajadantika with half quantity of Sourasa Patra, Kapitha (Feronialimonia Linn), Bilwa (Aegle marmelos), Dadima (Punica granatum Linn), Kshoudra (Honey).
- In Rajimantha Sarpa Visha (~Bite of Snakes with Stripes)-Katuka (Picrorhiza kurroa), Kushta (Saussurea lappa), Vyosa (Zingiber officinale), Piper nigrum, Piper longum, Tagara (Valeriana wallichii DC) made into paste and



consumed mixed with honey, destroys the poison of snakes with stripes.

- *Adravyaor Mani Prayoga-Dharana* of Marakata (Emerald), *Vaidoorya* (Cat's eye), *Vajra* (Diamond), *Himavat* (*Acorus gramineus Soland*), *Drona* (*Leucas aspera*), *Punarnava* (*Boerhaavia diffusa*), *Mahadrona* (*Leucas cephalotes*), *Maanasi*
- *Agada Proyoga* – *Himavatagada*, *Bilwadiagada*, *Sarvakarmika agada*, *Vajradiagada*, *Mritasanjivinigulika*, *Ashtangaagada*<sup>2</sup>

*Acharya Charaka* has explained *Chaturvimshati Upakrama* (~24 treatment procedure) as the general line of management for all types of *Visha*<sup>3</sup>, they include, *Mantra* (~Chanting hymns), *Arishta bandana* (~Tourniquet application), *Uthkarthana* (~Incision), *Nishpeedana* (~Squeezing), *Chushana* (~sucking), *Agni* (~Cauterization), *Parisheka* (~Sprinkling), *Avagaha* (~Immersion bath), *Rakthamoshana* (~Bloodletting), *Vamana* (~Emesis), *Virechana* (~Purgation), *Upadhana* (~Applying the medicine over incised scalp), *Hridayavarana* (~protection of hridaya), *Anjana* (~Collyrium), *Nasya* (~Nasal instillation), *Dhoopa* (~Fumigation), *Leha* (~linctus), *Aushadha* (~medicine), *Prashamana* (~pacifying measure), *Prathisarana* (~rubbing), *Prathivisha* (~antidote), *Sanjastapanam* (~regaining consciousness), *Lepa* (~ointments), *Mrthasanjivani* (~revival). Among these, *Agnikarma* (~Cauterization), and *Raktamokshana* (~Bloodletting), are the only parasurgical procedures.

## AGNIKARMA

The word *Agni Karma* is made up of the combination of two words - *Agni* and *Karma* (i.e. fire and procedure). In short, we can say it is a procedure done by *Agni* (~fire) for treating a disease<sup>4</sup>.

*Acharya Charaka* explained *Agni Karma* in the context of *Visha* which is located in *Twak* (~skin) and *Mamsa* (~muscle). It is carried out in all the *Visha* (~poison) conditions except in the case of the predominance of *Pitta*. As this procedure aggravates *Pitta Dosh*, it is contraindicated in *Mandali Sarpa Visha* and *Rakta Dhatugata Visha*. Blood is the important media through which the poison spreads. It blows up the poison in the body just as hot air blows up the fire.<sup>5</sup> The site of the bite is cauterized with the help of heated rods of gold, iron, etc. In certain cases; it is carried by a burning faggot. Fire converts anything into ash within seconds and poison is no exception to this. Hence this cauterization is indicated in cases of poisoning.<sup>6</sup>

*Acharya Sushruta* mentioned the *Agnikarma* (~cauterization) as supreme in all the para

surgical procedures. A separate chapter is dedicated to *Agni karma* in *Sutra Sthana*, where every aspect of cauterization is being explained, which denotes its importance in the treatment during those periods. *Sushruta* has referred *Agni karma* (~cauterization) in *Agropaharaniya*<sup>7</sup>, as *Upayantra*<sup>8</sup> and *Anushstra*<sup>9</sup>. *Acharya Sushruta* has specified the materials which are to be used for *Agni Karma* for different site of application<sup>10</sup>;

1. *Twakdagdha* – *Pippali* (*Piper longum*), *Ajashakrit* (Feces of the goat), *Godanta* (Teeth of the cow), *Shara* (Arrow), *Shalaka* (Probes).
2. *Mamsadagdha* – *Jambhavoshtha Shalaka* and Other metals.

*Vagbata* has also explained the same procedure of *Agnikarma* which is explained by *Charaka* and *Sushruta*. In *Ashtanga Samgraha*, a detailed description of *Agni Karma* (~cauterization) is found in the 40th chapter of *Sutra Sthana*. In *Ashtanga Hridaya*, a detailed description of *Agni Karma* (~cauterization) is described in the 30th chapter of *Sutra Sthana*.

## RAKTAMOKSHANA

The word *Raktamokshana* is made up of the combination of two words, i.e. *Rakta* which means blood, and *Mokshana* which means to leave. *Raktamokshana* means to let out blood. *Raktamokshana* treatment is very effective to neutralise toxin.<sup>11</sup>

According to *Charaka*, it is conducted by scrapping, application of *Shringa* (~Cow's horn) - *Vata Vikara*, *Jalouka* (~Leech therapy) - *Pitta Vikara*, *Alaabu* (Pitcher gourd) - *Kapha Vikara* or *Ghatika* (~Medium sized glass jar with one open end) - *Vata Vikara*. If the blood does not ooze out easily, then the area must be rubbed gently but briskly to facilitate the free flow of blood. This process of rubbing is known as '*Pragharshana* (~Rubbing)', it is carried out with the powder of *Trikatu* (*Zingiber officinale*, *Piper nigrum*, *Piper longum*), *Rajini* (*Curcuma longa*), *Panchalavana* (Five varieties of salts), *Gorochana*, *Vartaka*<sup>12</sup>

According to *Sushruta*, *Raktamokshana* (~Bloodletting) is usually carried out in the veins around the bite site, if the poison has spread to the distant areas, the veins in the forehead or the extremities should be punctured<sup>13</sup>. *Raktamokshana* (~Bloodletting) should not be attempted in children, old aged people, and pregnant women<sup>14</sup>. Hence the process of bloodletting is one of the important procedures to control the intensity of the poison in case of poisoning.

It should be quickly resorted to in the cases where the site of the bite is discolored, rigid, swollen, painful<sup>15</sup>



Vagbhata also explained the same procedure as mentioned in *Charaka* and *Sushruta* and also explained, vitiated blood more than one *Prastha* (134 pala=768grams) should not allowed to flow out, even in strong person, if excess blood is let out and pure blood starts flowing. It should be arrested immediately. Otherwise, it leads to complications like fainting, cardiac complications, etc., Hence the physician should make every attempt to arrest the flow of the pure blood through intense cold procedures like *Pariseka* (~Sprinkling), *Lepa* (Ointment), etc., as these measures initiate the process of blood clotting and this prevents the loss of pure blood<sup>16</sup>. Vitiated blood spreading and circulating in the body surely causes death<sup>17</sup>. Hence it should be removed as quickly as possible. It is highly beneficial in conditions where the poison has spread to distant parts of the body.

## MATERIALS AND METHODS

The study being a literary review, the sources of data are collected from *Brihatiriyis* (*Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Sangraha/Hridaya*), contemporary text books, relevant journals, and websites.

## DISCUSSION

### Superiority of Agnikarma

*Agni Karma* (~cauterization) is superior to *Bheshaja* (~Medicine), *Shastra* (~Instruments) & *Kshara karma* (~Caustic therapy) as a disease burnt with *Agni* will never reoccur. *Visha* (~Poison) which cannot be cured with any other *Upakramas* (~Treatments), can be cured with *Agni Karma* (~cauterization)<sup>18</sup>.

*Agni Karma* (~cauterization) is a pain management procedure described in *Ayurveda*. From the ancient period, this procedure was performed in a different place with a different name. Nowadays modern science used cautery like instruments which are nothing but modified *Agni Karma* (~cauterization) only. This is a superior treatment to all other procedures. After *Agni Karma* (~cauterization) there is no chance of reoccurrence of *Visha* (~Poison).

### Superiority of Raktamokshana

On the critical study of *Charaka Samhita*, it is recognized that the author has incorporated various aspects of *Raktamokshana* (~bloodletting therapy) as under.

□ Types of *Raktamokshana* (~Bloodletting) - *Sringa*, (~Cow's horn) *Jalouka* (~Leech therapy), *Alaabu* (Pitcher gourd), *Ghatika* (~Medium sized glass jar with one open end).

□ Method of application

□ Places of Venesection to be done

Though *Charaka Samhita* is considered to primarily work on *Kayachikitsa* (General medicine), the matter related to other branches has also been dealt with comprehensively. However, the author is very much clear about the views and ideas while dealing with a patient other than his specialization. Hence, *Acharya Charaka* has never crossed his jurisdiction at any point of time, while documenting the medical knowledge in his compendium. This is one attempt to describe all detailed information of Parasurgical procedures in snake bite poison in this article.

## CONCLUSION

*Chaturvimshathi Upakramas* (~24 treatment procedures) are the first line of management in *Sarpa* (~Snake) and all types of *Visha* (~Poison), among those *Agni Karma* (~cauterization) and *Raktamokshana* (~bloodletting) are the Para surgical procedures mentioned in it, which helps to remove the localized poison by which it avoids systemic absorption of poison and prevents the further complication of poison, hence this *Agni karma* (~cauterization) and *Raktamokshana* (~bloodletting) place a vital role in the primary management of the *Sarpa Visha* (~Snake bite poison).

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